PUBLIC NOTICE
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)
NATURAL RESOURCES RECOVERY , INC.
RONALDSON FIELD TYPE III CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL AND RESOURCES RECOVERY/RECYCLING FACILITY

PUBLIC HEARING AND REQUEST FOR PUBLIC COMMENT ON A

TECHNICALLY COMPLETE SOLID WASTE PERMIT APPLICATION RENEWAL & MODIFICATION AND THE ASSOCIATED ENVIRONMENTAL ASSESSMENT STATEMENT (EAS)

The LDEQ, Office of Environmental Services, will conduct a public hearing to receive comments on a technically complete solid waste permit application renewal action and modification and the associated Environmental Assessment Statement (EAS) for Natural Resources Recovery, Inc., 5800 One Perkins Place, Suite 6A, Baton Rouge, LA 70808 for the Ronaldson Field Type III Construction and Demolition Debris / Woodwaste Landfill. **The facility is located on Rafe Mayer Road 0.8 miles west of the intersection of Highway 19 in Baton Rouge, East Baton Rouge Parish.**

The hearing will be held on **Thursday, April 24, 2008, beginning at 6:00 p.m., at the Louisiana Department of Environmental Quality, Galvez Building Conference Center, Natchez Room, 602 North 5th Street, Baton Rouge, LA.** During the hearing, all interested persons will have an opportunity to comment on the technically complete application.

Free parking will be available at the Galvez Parking Garage facing the Galvez building on North Street. Parking tickets for the public hearing attendees will be validated by DEQ for the free parking.

Natural Resources Recovery, Inc. (NRRI) requested to renew and modify its existing permit for the Ronaldson Field Construction and Demolition Debris, Woodwaste and Resource Recovery/Recycling facility. The referenced modification is required in part by the LDEQ to be included in the permit renewal application and relates to the Declarations of Emergency issued during Hurricanes Katrina and Rita and in part to correct a discrepancy in the original permit. The modification addresses a change in side slopes and corresponding changes in elevation.

Written comments or written requests for notification of the final permit decision regarding this permit may also be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. **Written comments and/or written requests for notification must be received by 12:30 p.m., Tuesday, May 27, 2008.** Written comments will be considered prior to a final permit decision.

LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The technically complete solid waste permit renewal action and modification and the associated Environmental Assessment Statement (EAS) are available for review at the LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). **The available information can also be accessed electronically on the Electronic Document Management System (EDMS) on the DEQ public website at www.deq.louisiana.gov.**

Additional copies may be reviewed at East Baton Rouge Parish Library, Scotlandville Branch, 7373 Scenic Highway, Baton Rouge, LA and City of Baton Rouge, EBRP Mayor's Office, 222 St. Louis Street, 3rd Floor, Baton, LA.

Individuals with a disability, who need an accommodation in order to participate in the public hearing, should contact Ms. Barbara Mason at the above address or by phone at (225) 219-3280.

Inquiries or requests for additional information regarding this permit action should be directed to Curt A. Auzenne, LDEQ, Waste Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-3060.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at deqmaillistrequest@la.gov or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

Permit public notices including electronic access to general information from the technically complete solid waste permit application can be viewed at the LDEQ permits public notice webpage at www.deq.louisiana.gov/apps/pubNotice/default.asp and general information related to the public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx.

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at www.doa.louisiana.gov/oes/listservpage/ldeq_pn_listserv.htm

All correspondence should specify AI Number 42610, Permit Number P-0318, and Activity Number PER20060002.

Publication date: March 21, 2008

SOLID WASTE PERMIT RENEWAL APPLICATION

FOR

RONALDSON FIELD CONSTRUCTION AND DEMOLITION DEBRIS (TYPE III) LANDFILL

LOCATED AT
1500 RAFE MAYER ROAD
BATON ROUGE, LOUISIANA 70807
SOLID WASTE PERMIT D-033-8024/P-0318

PREPARED FOR:
NATURAL RESOURCES RECOVERY, INC.
5800 ONE PERKINS PLACE, SUITE 6-A
BATON ROUGE, LOUISIANA 70808

PREPARED BY:
ENGINEERING ASSOCIATES, INC.
1415 DELPLAZA DRIVE, SUITE B
BATON ROUGE, LOUISIANA 70815

September, 2006
(Revised January, 2008)

ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

COPY

ENGINEERING
ASSOCIATES, INC.
CONSULTING ENGINEERS
CIVIL • ENVIRONMENTAL • LAND SURVEYING

February 19, 2008

Project No. 96141

original to IOSW
copy to SW/G1/Townsel
AVG

Mr. Bijan Sharafkhani, P.E.
Administrator, Waste Permits Division
Louisiana Department of Environmental Quality
P.O. Box 4134
Baton Rouge, LA 70821-4314

Supplement to Permit Renewal Application
Ronaldson Field Construction and
Demolition Debris Landfill
AI# 42610/P-0318/D-033-8024/PER20060002
East Baton Rouge Parish

Dear Mr. Sharafkhani:

Submitted herewith please find six copies of an aerial photograph showing the captioned site and six copies of a revised page 8 relative to the captioned permit application. These items were requested by Mr. Curt Auzenne of your office as a supplement to Ronaldson Field's pending permit renewal application. This submittal is on behalf of our client, Natural Resources Recovery, Inc. (NRRI).

We appreciate your assistance in this matter. Should you have any questions or require additional information, please give me a call or Mr. Sid Brian of NRRI at 225-324-3485.

Sincerely,

ENGINEERING ASSOCIATES, INC.

Stephen J. Burnham, P.E.
President

SJB:dbc

c w/encl Mr. Sid Brian, Natural Resources Recovery, Inc.
Mr. Curt Auzenne, Louisiana Department of Environmental Quality

LDEQ - OES
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ENGINEERING
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CONSULTING ENGINEERS
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COPY

original to IOSW
fm
copy to SW/G1/Townsel
PAAR

January 11, 2008

Project No. 96141

Mr. Bijan Sharafkhani, P.E.
Administrator, Waste Permits Division
Louisiana Department of Environmental Quality
P.O. Box 4314
Baton Rouge, LA 70821-4314

Permit Renewal Application –
Submittal of Final Copies
Ronaldson Field Construction and Demolition Debris (Type III) Landfill
AI#42610/P-0318/D-033-8024/PER20060002

Dear Mr. Sharafakhani:

Submitted herewith please find six bound copies of the completed permit renewal application for Ronaldson Field Construction and Demolition Debris (Type III) Landfill. All previous revisions requested by the Louisiana Department of Environmental Quality have been incorporated into the attached renewal application. This submittal is in response to correspondence from your office dated January 3, 2008 and is on behalf of our client, Natural Resources Recovery, Inc.

We appreciate your assistance in this matter. Should you have any questions or require additional information, please give us a call.

Sincerely,

ENGINEERING ASSOCIATES, INC.

Stephen J. Burnham, P.E.
President

RECEIVED
JAN 11 2008
LDEQ

SJB:dbc

c w/encl Mr. Sid Brian, Natural Resources Recovery, Inc.
Mr. Curt Auzenne, LA Department of Environmental Quality (Letter Only)

1415 DELPLAZA DRIVE • SUITE B • BATON ROUGE, LOUISIANA 70815 • TELEPHONE: (225) 926-2025 • FACSIMILE: (225) 926-2033

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List of Exhibits

SECTION 1
INTRODUCTION

INTRODUCTION

Natural Resources Recovery, Inc. submits this permit renewal application for the continued operation of the Ronaldson Field Type III Construction and Demolition Debris Landfill and Resource Recovery/Recycling Facility. This facility is located on Rafe Mayer Road in East Baton Rouge Parish approximately 0.8 miles west of the intersection of Louisiana State Highway 19 and Rafe Mayer Road.

Over the past several years, and most notably subsequent to the occurrence of Hurricanes Katrina and Rita, Ronaldson Field has filled a vital role in the disposal of construction and demolition debris associated with the hurricanes and other less significant storms. The cost of disposal of these types of materials at Ronaldson Field represents a significant savings to the citizens of East Baton Rouge Parish as compared to other disposal alternatives. Ronaldson Field continues to fulfill this vital role on a day-to-day basis, ensuring that the growth of East Baton Rouge Parish and surrounding areas is not hindered due to a lack of available landfill space for disposal of construction and demolition debris materials.

Since receiving its initial permit, Ronaldson Field has also provided an ideal location for the parish of East Baton Rouge to divert its green and woodwaste streams from the North Landfill. The green and woodwaste streams are subsequently beneficially re-used as mulch and compost products. The diversion of these materials from the North Landfill and recycling of the materials represents a significant positive impact to the local economy as well as to the environment.

This application was prepared for Natural Resources Recovery, Inc., owner of Ronaldson Field, by Engineering Associates, Inc., 1415 Delplaza Drive, Suite B, Baton Rouge, Louisiana 70815.

LAC 33:VII.520 Compliance Information

A. All applicants for solid waste permits shall comply with the requirements of LAC 33:I.1.1701. A completed Form 1701 and supporting documentation is included in Exhibit 1.

SECTION 2
PART I-PERMIT APPLICATION

APPENDIX B
SOLID WASTE PERMIT APPLICATION – PART I

A. Applicant (Permit Holder): Natural Resources Recovery, Inc.

B. Facility Name: Ronaldson Field

C. Facility Location/Description: 0.8 miles from intersection of Highway 19 and Rafe Mayer Road

D. Location: Sections 35 Township 5S Range 1W Parish East Baton Rouge

Coordinates: Latitude 30° 33' 55" Longitude 91° 11' 12"

E. Mailing address: 5800 One Perkins Place, Ste 6A Baton Rouge, LA 70808

F. Contact: Sid Brian

G. Telephone: (225) 766-1443

H. Type and Purpose of Operation: (check each applicable line)

Type I	Industrial Landfill	____
	Industrial Surface Impoundment	____
	Industrial Landfarm	____
Type I-A	Industrial Incinerator Waste Handling Facility	____
	Industrial Shredder/Compacter/Baler	____
	Industrial Transfer Station	____
Type II	Sanitary Landfill	____
	Residential/Commercial Surface Impoundment	____
	Residential/Commercial Landfarm	____
Type II-A	Residential/Commercial Incinerator Waste Handling Facility	____
	Residential/Commercial Shredder/Compacter/Baler	____
	Residential/Commercial Transfer Station	____
	Residential/Commercial Refuse Derived Fuel	____
Type III	Construction/Demolition Debris Landfill	X
	Woodwaste Landfill	X
	Compost Facility	____
	Resource Recovery/Recycling Facility	X
Other	Describe: Not Applicable	

I. Site Status: Owned X Leased ____ Lease Term ____ Years

J. Operational Status: Existing X Proposed ____

K. Total Acres 90 Processing Acres 1 to 5 Disposal Acres 44

L. Environmental Permits: LPDES

M. Letter attached from the Louisiana Resource Recovery and Development Authority (LRRDA) stating that the operation conforms with the applicable statewide plan:

Note: LRRDA was appealed by Acts 2001 No. 524.

N. Zoned: Yes X No ____

M-2 Industrial

O. Types, Maximum Quantities (wet tons/week), and Sources of waste to be processed or disposed of by the facility:

	Processing		**Disposal**	
	On-site	Off-site	On-site	Off-site
Residential	N/A	N/A	N/A	N/A
Industrial	N/A	N/A	N/A	N/A
Commercial	N/A	N/A	N/A	N/A
Other(woodwaste & C/D)	500 tpw	N/A	5000 tpw	N/A

P. Service Area: Statewide N/A Unlimited N/A

The service area includes the following parishes only and specifically excludes New Orleans area parishes and all other parishes: East Baton Rouge, West Baton Rouge, East Feliciana, West Feliciana, Ascension, Livingston, and Iberville.

Q. attach proof of publication of the notice regarding the submittal of the permit application as required in LAC 33:VII.513.A: Provided in Exhibit 3

R. Certification: I have personally examined and am familiar with the information in the attached document, and I hereby certify under penalty of law that this information is true, accurate, and complete to the best of my knowledge. I am aware that there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment.

Signature

Date Oct 9, 07

Typed Name and Title Sid Brian, President

SECTION 3
PART II PERMIT APPLICATION

LOCATION CHARACTERISTICS
FACILITY CHARACTERISTICS
FACILITY SURFACE HYDROLOGY
FACILITY GEOLOGY
FACILITY SUBSURFACE HYDROLOGY
FACILITY PLANS AND SPECIFICATIONS
FACILITY ADMINISTRATIVE PROCEDURES
FACILITY OPERATIONAL PLANS
IMPLEMENTATION PLAN
FACILITY CLOSURE
FACILITY POST-CLOSURE
FINANCIAL RESPONSIBILITY
SPECIAL REQUIREMENTS

PART II PERMIT APPLICATION
A. LOCATION CHARACTERISTICS

PART II:

LAC 33:VII.521.A LOCATION CHARACTERISTICS.

1. The following information on location characteristics is required for all facilities:

a. Area Master Plans. A location map showing the facility, road network, major drainage systems, drainage-flow patterns, location of closest population center(s), location of the public-use airport(s) used by turbojet aircraft or piston-type aircraft, proof of notification of affected airport and Federal Aviation Administration as provided in LAC 33:VII.709.A.2, location of the 100 year flood plain, and other pertinent information. The scale of the maps and drawings must be legible, and engineering drawings are required.

RESPONSE

Exhibit 5 is a map showing the vicinity of the Ronaldson Field Construction and Demolition Debris Landfill located in East Baton Rouge Parish.

Exhibit 6 is a map showing the location of the Ronaldson Field Construction and Demolition Debris Landfill, which is located in Section 35, Township 5 S, Range 1 W of East Baton Rouge Parish. This map also shows the major drainage system in the area.

Exhibit 7 is a map showing the highways and local streets of the vicinity of Ronaldson Field.

Exhibit 8 contains census information for East Baton Rouge Parish.

Exhibit 9 is a copy of Flood Insurance Rate Map Community Panel Number 2200580060D for East Baton Rouge Parish showing the location of Ronaldson Field Construction and Demolition Debris Landfill relative to the 100-year flood plain. Correspondence to and from the U.S. Army Corps of Engineers is also provided in Exhibit 9.

The closest airport to the site is Ryan Airport, located approximately 2.3 miles southeast of the facility.

Exhibit 15 is a map showing existing site contours and drainage flow patterns. The site drains to an unnamed ditch that empties into the West Lateral of Cypress Bayou, thence to Cypress Bayou, thence to the Comite River, and thence into the Amite River. Prior to draining to the unnamed ditch, site contact water drains to an onsite settlement pond. Discharge occurs only after the pond water has been tested and confirmed to be in compliance with applicable discharge standards, at which time the water is pumped from the pond to its approved discharge location.

Access to facility is by land. Transportation is by all-weather roads that can meet the demands of the facility and are designed to avoid, to the extent practicable, congestion, sharp turns, obstructions, or other hazards conducive to accidents. The surface roadways shall be adequate to withstand the weight of transportation vehicles.

This facility does not handle putrescible solid waste.

b. A letter from the appropriate agency or agencies regarding those facilities receiving waste generated off-site, stating that the facility will not have a significant adverse impact on the traffic flow of area roadways and that the construction, maintenance, or proposed upgrading of such roads is adequate to withstand the weight of the vehicles.

RESPONSE

Exhibit 10 is a letter from the City of Baton Rouge Department of Public Works stating that the roads adjacent to Ronaldson Field are satisfactory as designed and constructed.

c. Existing Land Use - a description of the total existing land use within three miles of the facility (by approximate percentage) including but not limited to:

i. residential;

ii. health-care facilities and schools;

iii. agricultural;

iv. industrial and manufacturing;

v. other commercial;

vi. recreational;

vii. undeveloped.

RESPONSE

Approximate percentages of existing land use within three miles of the facility, as estimated based on 1980 U.S. Geological Survey Map and the East Baton Rouge Parish Horizon Plan, are as follows:

Type of Existing Land use	*Approximate Percentage*
Residential	*17%*
Health-Care Facilities and Schools	*3%*
Agriculture	*1%*
Industrial and Manufacturing	*10%*
Other Commercial	*1%*
Recreational	*5%*
Undeveloped	*63%*

d. Aerial Photograph - a current aerial photograph, representative of the current land use, of a one mile radius surrounding the facility. The aerial photograph shall be of sufficient scale to depict all pertinent features. (The administrative authority may waive the requirement for an aerial photograph for Type III facilities).

RESPONSE

A current aerial photograph showing a one-mile radius surrounding Ronaldson Field has been provided in Exhibit 5.

e. Environmental Characteristics - the following information on environmental characteristics:

i. a list of all known historic sites, recreation areas, archaeological sites, designated wildlife-management areas, swamps and marshes, wetlands, habitats for endangered species, and other sensitive ecological areas within 1,000 feet of the facility perimeter or as otherwise appropriate;

RESPONSE

There are no known historic sites, recreational areas, archeological sites, designated wildlife-management areas, or habitats for endangered species, within 1,000 feet of the facility perimeter. Historic wetlands delineation correspondence has been provided in Exhibit 9, as well as updated correspondence.

ii. documentation from the appropriate state and federal agencies substantiating the historic sites, recreation areas, archeological sites, designated wildlife-management areas, wetland, habitats for endangered species, and other sensitive ecological areas within 1,000 feet of the facility; and

RESPONSE

Exhibit 11 is a letter from the State of Louisiana Department of Culture, Recreation and Tourism, Office of Cultural Development stating that there are no known archeological sites or historical structures located within 1,000 feet of the site.

Exhibit 12 is a letter from the State of Louisiana Department of Wildlife and Fisheries stating that there are no known rare, threatened, or endangered species or critical habitats found within the area of the permit site. Also no state or federal parks, wildlife refuges, or wildlife management areas are located at the site.

Exhibit 13 is a letter from the Louisiana Office of State Parks, stating that there are no known recreational areas within 1,000 feet of the site.

iii. a description of the measures planned to protect the areas listed from the adverse impact of operation at the facility;

RESPONSE

There are no known historic sites, recreational areas, archeological sites, designated wildlife management areas, or habitats for endangered species that will be adversely impacted by operation of Ronaldson Field Construction and Demolition Debris Landfill. A combination of earthen ditches, vegetation, and silt fencing separates landfill activities from adjacent wetlands areas, where applicable. The operations of Ronaldson Field should have no adverse effect on adjacent wetlands areas.

f. A wetlands demonstration, if applicable, as provided in LAC 33:VII.709.A.4

RESPONSE

Correspondence from the New Orleans District Corps of Engineers has been provided in Exhibit 9. No dredged or fill material will be placed into wetland areas and silt fencing will be maintained between the landfill cells and any adjacent wetland areas, as noted on Exhibit 21.

g. Demographic Information - the estimated population density within a three-mile radius of the facility boundary, based on the latest census figures.

RESPONSE

The U.S. Census Bureau, 2000 Census Data, was queried to determine the population densities within an approximate 3-mile radius of the Ronaldson Field Construction and Demolition Debris Landfill. Based upon this survey, the average number of people per square mile in East Baton Rouge is 907. The total number of people within a three-mile radius of the facility is approximately 25,600 based on the population of the entire parish. The three-mile radius surrounding Ronaldson Field is one of the least populated areas of the parish, as such, the estimated density of 907 people per square mile is conservative. Census Data is contained in Exhibit 8.

2. The following information regarding wells, faults, and utilities is required for Type I and II facilities.

a. Wells. Map showing the location of all known or recorded shot holes and seismic lines, private water wells, oil and/or gas wells, operating or abandoned, within the facility and within 2,000 feet of the facility perimeter and the location of all public water systems, industrial water wells, and irrigation wells within one mile of the facility. A plan shall be provided to prevent adverse effects on the environment from the wells and shot holes located on the facility.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III faciltiy.

b. Faults

i. scaled map showing the location of all recorded faults within the facility and within one mile of the perimeter of the facility; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

ii. demonstration, if applicable, of alternative fault setback as provided in LAC 33:VII.709.A.5.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

c. Utilities. Scale map showing the location of all pipelines, power lines, and right of ways within the site.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III.

PART II PERMIT APPLICATION
B. FACILITY CHARACTERISTICS

LAC 33:VII.521.B. FACILITY CHARACTERISTICS.

1. The following information is required for all facilities:

a. elements of the process or disposal system employed, including, as applicable, property lines, original contours (shown at not greater than five-foot intervals), buildings, units of the facility, drainage, ditches and roads;

RESPONSE

A site plan showing the existing layout of the facility prior to construction has been included as Exhibit 14. The layout delineates property lines, existing contours, and drainage patterns prior to construction.

Exhibit 15 shows the buildings, units of the facility, drainage patterns, contours, ditches and roads that are currently located on the site.

b. the perimeter barrier and other control measures;

RESPONSE

For safety and isolation measures, Ronaldson Field Construction and Demolition Debris Landfill has a fence around the periphery of the active facility with a locking gate across the only entrance to the Landfill to control access to the facility. The fence and gate are currently in place and would be expected to prevent unauthorized ingress/egress except by willful entry. An independently contracted security service is also utilized for after-hours security on an intermittent basis.

Fences and/or additional control measures will be constructed and maintained around the perimeter of currently inactive Phase 4 of the facility prior to the placement of Phase 4 into service. Existing fences and natural barriers are shown on Exhibit 15. The Landfill has a posted readable sign at the entrance gate that lists the types of wastes that will not be accepted at the Landfill.

During operating hours, the entry point is continuously monitored. During non-operational hours the entry gate is locked.

The heavily wooded buffer zone on the south side of the property serves as a natural barrier to prevent ingress except by willful entry.

c. a buffer zone;

RESPONSE

The facility maintains the required 50-foot buffer zone around all processing and disposal areas. No processing or disposal is allowed in this 50-foot buffer zone.

A City-Parish Ordinance requires a 200-foot buffer from the nearest edge of the excavation to the nearest property line of any residence or recognized subdivision. In order to accommodate this requirement, a 250 foot buffer zone (voluntarily increased 50' beyond the required 200-foot buffer) is maintained along the northwest side of the site, and a 200 foot buffer zone will be maintained along the southeast side of the site (Phase 4) once it becomes active. Natural wooded barriers exist on several sides of the site in addition to the required buffer zones

d. fire-protection measures;

RESPONSE

Exhibit 16 is a map showing the existing Fire Stations and Volunteer Fire Districts and Stations in the vicinity of Ronaldson Field. There are three fire stations located within approximately five miles of the site. The medical facility (Lane Memorial Hospital) is located within approximately 11 miles of the site.

The Emergency Procedures Plan provided as Exhibit 17 includes details regarding emergency procedures for the facility, including a Fire Control Plan.

e. landscaping and other beautification efforts;

RESPONSE

Landscaping is currently provided along Rafe Mayer Road and at the entrance to the facility. Natural vegetation, grass cover and other beautification control methods are also employed at the site. The height of the grass on areas that have received final cover will be maintained by Ronaldson Field maintenance personnel.

f. devices or methods to determine, record, and monitor incoming waste;

RESPONSE

A clearly legible sign is currently posted at the entrance of the facility listing the types of waste that can be received. Unacceptable materials are not accepted at the site.

Site entry is controlled via a manned or locked gate. All vehicles must go through a check-in point where the construction and demolition debris is visually observed. No load is accepted for disposal without first being approved by gate personnel. As the material from the vehicles is unloaded, another check is performed to assure that all materials are construction and demolition debris or woodwaste only. Weight (wet-weight tonnage) is determined by use of a conversion factor to convert from cubic yards to tons.

All required data is currently recorded and maintained at the facility. A daily log is maintained by gate personnel including the truck number and Solid Waste ID Number (if applicable), general content of load, and the amount of waste on each truck. An example of the log sheet and associated forms is included in Exhibit 19.

g. NPDES discharge points (existing and proposed); and

RESPONSE

The existing LPDES discharge point is described in Exhibit 20 (the LPDES permit). The single discharge point for the facility is shown on Exhibit 15.

h. other features as appropriate.

RESPONSE
Not applicable

2. The following information is required for Type I and II facilities:

a. areas for isolating nonputrescible waste or incinerator ash, and borrow areas; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. location of leachate collection/treatment/removal system.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

PART II APPLICATION
C. FACILITY SURFACE HYDROLOGY

LAC 33:VII.521.C. FACILITY SURFACE HYDROLOGY.

1. The following information regarding surface hydrology is required for all facilities:

   a. a description of the method to be used to prevent surface drainage through the operating areas of the facility;

   RESPONSE

   Surface drainage is collected by earthen ditches located outside of the active areas of the landfill. Rainwater that falls within the limits of active portions of the landfill is routed to an on-site settling pond for analysis prior to discharge. The settling pond is shown on Exhibit 15 and may be relocated as new cells are constructed within the landfill.

b. a description of the facility runoff/run-on collection system;

RESPONSE

All facility run-off will drain to drainage ditches due to the natural and proposed drainage patterns. The only run-on collection will be that of surface water (rainwater) which falls into the excavated pit itself. This water is routed to the on-site settling pond prior to discharge.

c. the maximum rainfall from a 24-hour/25-year storm event;

RESPONSE

The maximum amount of rainfall from a 24-hour/25-year event is estimated to be 10 inches. This amount of rainfall would not overwhelm facility operations. Rainwater that falls within the limits of the landfill cells will be tested and discharged in accordance with the existing water discharge permit for the facility.

d. the location of aquifer recharge areas in the site or within 1,000 feet of the site perimeter, along with a description of the measures planned to protect those areas from the adverse impact of operations at the facility; and

RESPONSE

An aquifer recharge map has been provided in Exhibit 22. As shown, the site is located in an area of low recharge potential. Based on the presence of low permeability clays beneath the site, no adverse impacts to aquifers in the vicinity of the facility should occur.

e. if the facility is located in a flood plain, a plan to ensure that the facility does not restrict the flow of the 100 year base flood or significantly reduce the temporary water-storage capacity of the flood plain, and documentation indicating that the design of the facility is such that the flooding does not affect the integrity of the facility or result in the washout of solid waste.

RESPONSE

Based on Flood Insurance Rate Map Panel No. 220058 0060 D dated 5/17/93, the facility is not located within the 100-year flood plain (Exhibit 9).

PART II PERMIT APPLICATION
D. FACILITY GEOLOGY

LAC 33:VII.521.D. FACILITY GEOLOGY.

1. The following information regarding geology is required for Type I and Type II facilities:

a. isometric profile and cross-section of soils, by type thickness, and permeability;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. logs of all known soil borings taken on the facility and a description of the methods used to seal abandoned soil borings;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

c. results of test for classifying soils (moisture contents, Atterberg limits, gradation, etc.), measuring soil strength and determining the coefficients of permeability, and other applicable geotechnical tests;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

d. geologic cross-section from available published information depicting the stratigraphy to a depth of at least 200 feet below the ground surface;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

e. for faults mapped as existing through the facility, verification of their presence by geophysical mapping or stratigraphic correlation of boring logs. If the plane of the fault is verified within the facility's boundaries, a discussion of measures that will be taken to mitigate adverse effects on the facility and the environment;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

f. for a facility located in a seismic impact zone, a report with calculations demonstrating the facility will be designed and operated so that it can withstand the stresses caused by the maximum ground motion as provided in LAC 33:VII.709.C.2; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

g. for a facility located in an unstable area, a demonstration of facility design as provided in LAC 33:VII.709.C.3.

RESPONSE

This regulation is not applicable. Ronaldson Field is a Type III facility.

2. The following information regarding geology is required by Type III woodwaste, and construction/demolition-debris facilities:

a. general description of the soils provided by a qualified professional (a geotechnical engineer, soil scientist, or geologist) along with a description of the method used to determine soil characteristics; and

RESPONSE

Geotechnical investigation activities were performed at the site by Engineering Associates in September, 1995. A total of six soil borings (two borings to 24 feet below ground surface and four borings to 42-50 feet below ground surface) were installed at the site. Soil types encountered in each boring consisted of clays (CH) and silty clays (CL). A representative sample of soils beneath the site exhibited a permeability value of $1.21x10^{-8}$ cm/sec, representing an excellent natural liner material. A copy of the geotechnical analysis report has been provided in Exhibit 23. The maximum anticipated depth of excavation during construction of landfill cells is 45 feet below ground surface.

An additional and updated geotechnical report was prepared by Ardaman and Associates, Inc. in 2007. A copy of the report, dated March 16, 2007, is included in Exhibit 23. The report states that analyzed sections have an adequate factor of safety against slope failure.

b. logs of all known soil borings taken on the facility and a description of the methods used to seal abandoned soil borings;

RESPONSE

The logs of the soil borings performed in September 1995 and in March 2007 are included in Exhibit 23. All soil borings were plugged in accordance with the DOTD Water Well Regulations.

PART II PERMIT APPLICATION
E. FACILITY SUBSURFACE HYDROLOGY

LAC 33:VII.521.E. FACILITY SUBSURFACE HYDROLOGY.

1. The following information on subsurface hydrology is required for all Type I facilities and Type II landfills and surface impoundments:

a. delineation of the following information for the water table and all permeable zones from the ground surface to a depth of at least 30 feet below the base of excavation:

i. areal extent beneath the facility;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

ii. thickness and depth of the permeable zones and fluctuations;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

iii. direction(s) and rate(s) of groundwater flow based on information obtained from piezometers and shown on potentiometric maps; and

RESPONSE
This regulation is not applicable. Ronaldson Field a Type III facility.

iv. any change in groundwater flow direction anticipated to result from any facility activities.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. delineation of the following, from all available information, for all recognized aquifers which have their upper surfaces within 2,000 feet of the ground surface.

i. areal extent;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

ii. thickness and depth to the upper surface;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

iii. any interconnection of aquifers; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

iv. direction(s) and rate(s) of groundwater flow shown on potentiometric maps.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility

2. The following information of subsurface hydrology is required for Type I landfarms. Delineation of the following information for the water table and all permeable zones from the ground surface to a depth of at least 30 feet below the zone of incorporation:

a. areal extent beneath the facility;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. thickness and depth of the permeable zone and fluctuations;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

c. direction(s) and rate(s) of groundwater flow based on information obtained from piezometers and shown on potentiometric maps; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

d. any change in groundwater flow direction anticipated to result from any facilities activities.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

PART II PERMIT APPLICATION
F. FACILITY PLANS AND SPECIFICATIONS

LAC 33:VII.521.F. FACILITY PLANS AND SPECIFICATIONS.

1. Certification-The person who prepared the permit application must provide the following certification:

"I certify under penalty of law that I have personally examined and I am familiar with the information submitted in this permit application and that the facility as described in this permit application meets the requirements of the Solid Waste Rules and Regulations. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment."

RESPONSE

The requested certification is provided as Exhibit 24.

2. The following information on plans and specifications is required for Type I and II facilities:

a. detailed plan-view drawing(s) showing original contours, proposed elevations of the base of units prior to installation of the liner system, and boring locations;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. detailed drawings of slopes, levees, and other pertinent features; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility

c. the type of material and its source for levee construction. Calculations shall be submitted demonstrating that an adequate volume of material is available for the required levee construction.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

3. The following information on plans and specifications is required for Type I, II, and III landfills:

a. approximate dimensions of daily fill and cover; and

RESPONSE

Daily cover is not required. Daily fill will be placed in lifts and compacted. The area of daily fill will vary with the amount of waste received each day. However, the smallest practical active area will be maintained throughout the life of the landfill.

b. the type of cover and its source for daily, interim, and final cover. Calculations shall be submitted demonstrating that an adequate volume of material is available for daily, interim and final cover.

RESPONSE

The source for the monthly and final cover material will be the soil that is excavated from the solid waste cells. The soil characteristics at the site are predominately clay (CH+CL) and are described in the geotechnical report included as Exhibit 23.

Waste deposited in the landfill will be compacted and covered with predominantly clay soil applied a minimum of twelve inches (12") thick, at least every 30 days. The cover material will:

(1) Minimize vector breeding areas and animal attraction by controlling:
  (a) fly, mosquito, and other insect emergence and entrance:
  (b) rodent burrowing for food and harborage; and
  (c) bird and animal attraction;
(2) Control leachate generation by:
  (a) minimizing external-moisture infiltration;
  (b) minimizing erosion;
  (c) utilizing materials with minimum free-liquid content and minimum concentrations of constituents monitored in leachate;
(3) Reduce fire-hazard potential by minimizing inward movement atmospheric oxygen;
(4) Minimize blowing paper and litter;
(5) Reduce noxious odors by minimizing outward movement of methane and other gases;
(6) Provide aesthetic appearance to the landfill operation; and
(7) Allow accessibility regardless of weather.

A summary of interim and final clay requirements versus availability of on-site clay is provided as follows:

A. Phase 1 and 2 (currently active)	
1. Interim cover required	**(100,740 cy)**
2. Additional cover required for final CAP	**(45,173 cy)**
3. Available clay from unexcavated portions of Phases 1 & 2 plus stockpile quantity currently on-site (96,800 cy + 10,000 cy)	**106,800 cy**
Net Available Clay	**(39,113 cy)**

B. Phase 3

1. Interim cover required	(24,400 cy)
2. Additional cover required for final CAP	(7,400 cy)
3. Available clay from excavation of Phase 3	112,400 cy
Net Available Clay	80,600 cy

C. Phase 4

1. Interim cover required	(35,600 cy)
2. Additional cover required for final CAP	(9,196 cy)
3. Available clay from excavation of Phase 4	160,000 cy
Net Available Clay	115,204 cy

Total Available Clay (all phases) = (39,113)+780,600+115,204 = 156,691 cy

4. The following information on plans and specifications for the prevention of groundwater contamination must be submitted for Type I and II facilities.

a. representative cross-section and geologic cross-section showing original and final grades, approximate dimensions of daily fill and cover, drainage, the water table, groundwater conditions, the location and type of liner, and other pertinent information;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. a description of the liner system, which shall include: calculations of anticipated leachate volumes, rationale for particular designs of such systems and drawings; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

c. a description of the leachate collection and removal system, which shall include calculations of anticipated leachate volumes, rationale for particular designs of such systems, and drawings.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

5. The following information on plans and specifications for groundwater monitoring must be provided for Type I and II facilities:

a. a minimum of three piezometers or monitoring wells in the same zone must be provided in order to determine groundwater flow direction;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. for groundwater monitoring wells, cross-sections illustrating construction of wells, a scaled map indicating well locations and the relevant point of compliance, and pertinent data on each well, presented in tabular form, including drilled depth, the depth to which the well is cased, screen interval, slot size, elevations of the top and bottom of the screen casing size, type of grout, ground surface elevation, etc.,;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

c. a groundwater monitoring program including a sampling and analysis plan that includes consistent sampling and analysis procedures that ensure that monitoring results provide reliable indications of groundwater quality;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

d. for an existing facility, all data on samples taken from monitoring wells in place at the time of the permit application must be included. (If this data exists in the Solid Waste Division records, the administrative authority may allow references to the data in the permit application). For an existing facility with no wells, groundwater data shall be submitted within 90 days after the installation of monitoring wells. For a new facility, groundwater data (one sampling event) shall be submitted before waste is accepted;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

e. a plan for detecting, reporting, and verifying changes in groundwater; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

f. the method for plugging and abandonment of groundwater monitoring systems.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

6. The facility plans and specifications for Type I and II landfills and surface impoundments (surface impoundments with on-site closure and potential to produce gases) must provide a gas collection and treatment or removal system.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

PART II PERMIT APPLICATION
G. FACILITY ADMINISTRATIVE PROCEDURES

LAC 33:VII.521.G. FACILITY ADMINISTRATIVE PROCEDURES.

1. The following information on administrative procedures is required for all facilities:

a. record keeping system; types of records to be kept; and the use of records by management to control operations;

RESPONSE

The quantity (wet-weight tonnage) of the solid waste entering the site will be calculated using the weights per cubic yard as shown in Exhibit 18. A scale may also be utilized at the facility as required by various customers. All waste items which are determined to be unacceptable construction/demolition-debris shall not be unloaded at the site. Any waste items determined to be unacceptable will be rejected and a log of all rejected loads/items will be maintained at the facility.

Log sheets will be maintained on site and will be used in the preparation of the Annual Report. If any loads are accepted at the gate without a tipping fee, it will be so noted on the log sheet and reported on the Annual Report as such.

The Annual Reports submitted to the administrative authority indicate the quantities and types of solid waste (expressed in wet-weight tons per year) received during the reporting period. Any calculations used to determine the amounts of solid waste received will be available to the administrative authority. A copy of the Annual Report covering the period of July, 2005 through June, 2006 has been provided as Exhibit 25. Future reports will continue to be provided on the forms required by the Department and submitted on or before August 1 of each reporting period. The annual report will be provided for each individual permitted facility on a separate annual reporting form.

Records will be maintained for the life of the facility and for at least three years subsequent to closure of the facility. The records shall include the date of receipt of shipments of waste and the solid waste transporter's solid waste identification number issued by the Department.

In addition to the information previously discussed, copies of the current Louisiana Solid Waste Rules and Regulations, the Solid Waste Permit, the permit application, and permit modifications as well as any other applicable correspondence with the department will be maintained on-site.

b. an estimate of the minimum personnel, listed by general job classification, required to operate the facility; and

RESPONSE

At a minimum, the following personnel, along with job classification, will be on-site during operations:

1 - Office Personnel (Site Manager)
1 - Dozer/Backhoe Operator

c. maximum days of operation per week and per facility operating day (maximum hours of operation within a 24-hour period).

RESPONSE

The landfill's current permitted operating hours are from 7:00 am to 6:00 p.m. Monday through Saturday. Ronaldson Field proposes to maintain maximum operating hours of 6:00 am to 6:00 pm Monday through Saturday in conjunction with this permit renewal. However, following catastrophic storms or other such events, the facility reserves the right to accept waste 24 hours per day, 7 days per week upon prior notification to the Administrative Authority.

2. Administrative procedures for Type II facilities shall include the number of facility operators certified by the Louisiana Solid Waste Operator Certification and Training Program (R.S.37:3151 et seq.).

RESPONSE

One operator, certified by the Louisiana Solid Waste Operator Certification and Training Program, will be on site at all times during operational hours.

Each Operator's certificate will be prominently displayed at the facility.

PART II PERMIT APPLICATION
H. FACILITY OPERATIONAL PLANS

LAC 33:VII.521.H. FACILITY OPERATION PLANS.

1. The following information on operational plans is required for all facilities:

   a. types of waste (including chemical, physical, and biological characteristics of industrial wastes generated on-site), maximum quantities of wastes per year, and sources of waste to be processed or disposed of at the facility;

   RESPONSE

   The facility accepts only construction/demolition debris wastes as defined in LAC 33:VII.115, including woodwaste. The generating sources for this solid waste are various state, municipal, residential, and commercial properties.

   The facility expects to receive from 60,000 tons to 260,000 tons of solid waste per year at full capacity. The estimated per week maximum to be received at the landfill is 1,200 to 5,000 tons.

   This facility will not accept the following types of waste: hazardous, liquid, infectious, residential, industrial, commercial, friable asbestos, or putrescible wastes as defined in LAC 33:VII.115 unless specific permission is granted by the administrative authority. The receipt of non-acceptable wastes listed will be prohibited and prevented. A maximum of 5% by volume of paper waste associated with construction/demolition debris will be disposed of at the facility per year.

b. waste-handling procedures from entry to final disposition, which could include shipment of recovered materials to a user;

RESPONSE

Procedures for handling waste have been included as Exhibit 26. Exhibit 27 is a flow chart depicting the sequence of the solid waste landfilling.

Open burning will not be practiced unless authorization is first obtained from the administrative authority and any other applicable federal, state, and local authorities.

Scavenging and salvaging shall be prevented at the site.

Tires will be stored on-site as required by LAC 33:VII.10519 and removed by a registered transporter to an authorized site.

White goods will be removed every 30 days by a registered transporter to an authorized site.

All other unauthorized waste will be stored as required by LAC 33:VII.703 for a maximum of seven days. Records will be maintained of all waste removal as required by this permit and the regulations.

c. minimum equipment to be furnished at the facility;

RESPONSE

The operation will have, at a minimum, one backhoe and one dozer. Sufficient equipment will be provided and maintained at the facility to meet its operational needs.

d. plan to segregate wastes, if applicable;

RESPONSE

All incoming waste will be inspected and any materials that are determined to be unacceptable will not be accepted at the landfill. The only waste segregation activities conducted at the facility are the removal and storage of unacceptable waste streams and segregation of green waste for beneficial reuse purposes.

If waste determined to be unacceptable is discovered at the landfill, the waste will be removed from the facility at least every seven days. Storage of this waste will be in containers that prevent access by rodents and insects, minimize the escape of odors, and keep out water. The facility will maintain a log of dates and volumes of waste removed from the facility (see forms provided in Exhibit 19).

e. procedures planned in case of breakdowns, inclement weather, and other abnormal conditions (including detailed plans for wet-weather access and operations);

RESPONSE

Ronaldson Field maintains accounts with multiple equipment rental facilities in the event that rental equipment is needed. Inclement weather has not significantly impacted the facility in the past and would not be expected to do so in the future. All-weather roads and maintenance of both wet weather and dry weather tipping pads serves to minimize the impact of adverse weather conditions.

f. procedures, equipment, and contingency plans for protecting employees and the general public from accidents, fires, explosions, etc., and provisions for emergency care should an accident occur (including proximity to a hospital, fire and emergency services, and training programs):

RESPONSE

In order to properly protect employees from accidents and provide emergency care should an accident occur, proper authorities will be notified via the 911 emergency response system. First aid supplies and fire extinguishers will be maintained in full working condition on-site. The fire extinguishers are located in the offices of the landfill, in the equipment maintenance building, and on all heavy equipment utilized in the landfill. Lane Memorial Hospital is located within approximately 7 miles of the landfill and three fire stations are located within approximately 3 miles of the landfill (See Exhibit 16). Correspondence from Lane Memorial Hospital and the local fire department indicating that their facilities can handle emergencies at the site has been included in Exhibit 16. See Exhibit 17 for a copy of the Fire and Safety Plan and evacuation routes for the facility.

Training will be conducted at least annually at the facility and the facility's Fire and Safety Plan will be filed with the administrative authority, local fire department, and closest hospital or clinic. The plan will be updated annually or when implementation demonstrates the need for revision.

g. provisions for controlling vectors, dust, litter and odors.

RESPONSE

Odor and vector problems should be minimal as no putrescible wastes are accepted or disposed on site. Odor control measures shall be implemented throughout facility operations with the use of cover material as required.

Dust will be controlled by the application of water to traveled areas as necessary. Litter control should be minimal due to the nature of the construction/demolition-debris. However, landfill personnel will patrol the site daily and collect and properly dispose of any litter that may accumulate.

Monthly cover consisting of 12" of clay or other acceptable material will be placed on exposed portions of the landfill at a minimum frequency of every 30 days. The monthly cover will also serve to control vectors, dust, litter, and odors.

2. The following information on operational plans is required for Type I and II facilities:

a. a comprehensive operational plan describing the total operation, including (but not limited to) inspection of incoming waste to ensure that only permitted wastes are accepted (Type II landfills must provide a plan for random inspection of incoming waste loads to ensure that hazardous wastes or regulated PCB wastes are not disposed of in the facility); traffic control; support facilities; equipment operation; personnel involvement; and day-to-day activities. A quality assurance/quality control (QA/QC) plan shall be provided for facilities receiving industrial waste; domestic-sewage sludge; incinerator ash; friable asbestos; nonhazardous petroleum-contaminated media; and debris generated from underground storage tanks (UST), corrective action, or other special wastes as determined by the administrative authority. The QA/QC plan shall include (but shall not be limited to) the necessary methodologies; analytical personnel; preacceptance and delivery restrictions; and appropriate responsibilities of the generator, transporter, processor, and disposer. The QA/QC plan shall ensure that only permitted, non-hazardous wastes are accepted;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. salvaging procedures and control, if applicable; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

c. scavenging control

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

3. The following information on operational plans is required for Type I and II landfarms:

a. items to be submitted regardless of land use:

i. a detailed analysis of waste, including (but not limited to pH, phosphorous, nitrogen, potassium, sodium, calcium, magnesium, sodium-adsorption ratio, and total metals (as listed in LAC 33:VII.715.D.3.b);

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

ii. soil classification, cation-exchange capacity, organic matter, content in soil, soil pH, nitrogen, phosphorus, metals (as listed in LAC 33:VII.715.D.3.b), salts, sodium, calcium, magnesium, sodium-adsorption ratio, and PCB concentrations of the treatment zone;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

iii. annual application rate (dry tons per acre) and weekly hydraulic loading (inches per acre); and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

iv. an evaluation of the potential for nitrogen to enter the groundwater.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. items to be submitted in order for landfarms to be used for food-chain cropland:

i. a description of the pathogens-reduction method for seepage, domestic sewage sludges, and other sludges subject to pathogen production;

RESPONSE
Not applicable - the proposed Landfill is a Type III facility.

ii. crops to be grown and the dates for planting;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

iii. PCB concentrations in waste;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

iv. annual application rates of cadmium and PCBs; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

v. cumulative applications of cadmium and PCBs.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

c. items to be submitted for landfarms to be used for nonfood-chain purposes:

i. description of the pathogen-reduction method in septage, domestic sewage sludges, and other sludges subject to pathogen production; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

ii. description of control of public and livestock access.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

4. The following information on operational plans is required for Type I-A and II-A incinerator waste-handling facilities and refuse-derived energy facilities:

a. a description of the method used to handle process waters and other water discharges which are subject to NPDES permit and state water discharge permit requirements and regulations; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. a plan for the disposal and periodic testing of ash (all ash and residue must be disposed of in permitted facility).

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

5. The following information on operational plans is required for Type I-A and II-A refuse-derived fuel facilities and Type III separation and composing facilities:

a. a description of the testing to be performed on the fuel or compost; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. a description of the uses for and the types of fuel/compost to be produced.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

6. The operational plans for Type I-A and II-A refuse-derived fuel facilities and Type III separation and composting facilities must include a description of marketing procedures and control.

RESPONSE

This regulation is not applicable. Ronaldson Field is a Type III facility.

7. The operational plans for Type I and II facilities receiving waste with a potential to produce gases must include a comprehensive air monitoring plan.

RESPONSE

This regulation is not applicable. Ronaldson Field is a Type III facility.

PART II PERMIT APPLICATION
I. IMPLEMENTATION PLAN

LAC: 33:VII.521.I. IMPLEMENTATION PLAN.

1. The implementation plans for all facilities must include the following:

   a. a construction schedule for existing facilities which shall include beginning and ending time-frames and time-frames for the installation of all major features such as monitoring wells and liners. (Time-frames must be specified in days, with day one being the date of standard permit issuance); and

   RESPONSE

   This is an existing facility that is currently operating in a portion of the area designated as Phases 1 and 2, as shown on the Site Plan-Final Layout provided in Exhibit 21. It is anticipated that Phases 1 and 2, excluding areas on which facility buildings and the main entrance drive are located, will be filled to capacity within 6-8 years from the date of approval of this permit. Approximately 90 days prior to that time, it is anticipated that the area designated as Phase 3 will be excavated to its final depth as required for receipt of waste material. The life of Phase 3 is estimated to be approximately 2 years. Approximately 90 days prior to filling of Phase 3, Phase 4 will be excavated as required for receipt of waste material. The life of Phase 4 is estimated to be 3-4 years.

   b. details on phased implementation if any proposed facility is to be constructed in phases.

   RESPONSE

   Phases 1, 2, and 3 are separated from Phase 4 by a wetlands area that is not included within the landfill disposal area. It is anticipated that phases 1 and 2 will be filled to capacity prior to activation of the Phase 3 area. However, the pond and office areas located on Phases 1 and 2 (see Exhibit 15) will remain in place. Once Phase 3 has been filled to capacity, the office area currently located in the Phase 1 and Phase 2 area will be relocated to the buffer zone at either the northwest corner of the site or the extreme easterly end of the site (see Exhibit 21). The pond will be drained in accordance with the water discharge permit for the site. The pond will then be mucked, verification of clay base will be performed, and the area will then be filled with waste material.

   It is anticipated that Phase 4 of the facility will be activated once Phases 1, 2, and 3 are filled to capacity. Access to Phase 4 is via Leisure Road, as shown on Exhibit 21. An office/check-in station will be maintained within the limits of the Phase 4 until Phase 4 is near completion. At that time, the office/check-in station will be relocated to the buffer zone area to the south of Phase 4 until final closure.

2. The implementation plans for Type I and II facilities must included a for closing and upgrading existing operating areas if the application is for expansion of a facility or construction of a replacement facility.

RESPONSE

This regulation is not applicable. Ronaldson Field is a Type III facility.

PART II PERMIT APPLICATION
J. FACILITY CLOSURE

LAC 33:VII.521.J. FACILITY CLOSURE.

1. The closure plan for all facilities must include the following:

   a. the date of final closure:

RESPONSE

The date for final closure of Ronaldson Field is estimated to be in the year 2020. This does not preclude closing of the landfill at an earlier or later date based on actual material disposal rates, which will be heavily influenced by hurricane-related disposal needs over the next few months and years.

b. the method to be used and steps necessary for closing the facility; and

RESPONSE

The administrative authority will be notified in writing at least 90 days before closure or intent to close any individual units within the facility. The notification will include the following information: date of planned closure, changes, if any, requested in the approved closure plan, and closure schedule and estimated costs.

The landfill will be partially closed as filling of the facility progresses. Because of the filling sequence, phased closure will occur as different areas are filled to capacity. Final cover shall be applied within 30 days after final grades are reached in each particular phase of the landfill. Standing water will be prohibited. Perimeter ditches and positive slopes shall be maintained and modified (if needed) until the final cover is installed to prevent overflow of the landfill. An insect and rodent inspection will be performed and documented before the installation of final cover. Extermination measures, if needed, will be provided. All waste will be machine compacted and graded before capping with final cover.

Final cover shall consist of a minimum of 24" of silty clay or clay and 6" of topsoil to support vegetative growth. After the closure inspection and approval, the cover will be vegetated. The side slopes will be no steeper than 3(H):1(V) and the cover will have a minimum of a 4% crown slope (see Exhibit 21).

c. the estimated cost of closure of the facility, based on the cost of hiring a third party to close the facility at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive.

RESPONSE

The largest single area that will require closure at any point during landfill operations is represented by Phase 1 and 2 (±28 acres) less ±3 acres currently occupied by the scales, office, maintenance building, and entrance to the facility. The ±3 acre portion of the facility will be the last area that is excavated for receipt of construction and demolition debris.

The estimated closure cost for the largest single operating area of the landfill (25 acres of Phase 1 and 2) is $162,022.00 (see Exhibit 28). This closure cost provides for the placement of a 24-inch clay cap, all of which is available on-site, placement of 6 inches of top soil, and placement of vegetative cover. As shown in Exhibit 29, an additional cost of $15,000 is estimated for performance of post closure activities. These activities include performance of erosion repair, cap integrity maintenance, and preparation of Annual Reports for a period of 3 years subsequent to closure.

2. The closure plan for Type I and II landfills and surface impoundments must include:

a. a description of the final cover and methods and procedures used to install the cover;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. an estimate of the largest area of the facility ever requiring a final cover at any time during the active life;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

c. an estimate of the maximum inventory of solid waste ever on-site over the active life of the facility; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

d. a schedule for completing all activities necessary for closure.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

3. The closure plan for all Type I and II facilities and Type III woodwaste and construction/demolition debris facilities shall include the following:

a. the sequence of final closure of each unit of the facility, as applicable;

RESPONSE

Phases 1 and 2, excluding those portions currently occupied by structures and the entrance area to the landfill, will be closed upon reaching the final permitted elevations for those phases, followed by Phase 3 and Phase 4, respectively. Lastly, the ±3 acres occupied by structures and the entrance area to the landfill will be excavated, filled to permitted heights, and closed.

b. a drawing showing final contours of the facility; and

RESPONSE

A site plan showing the proposal final contours is included in Exhibit 21. A cross-section of the landfill is also provided on the site plan.

c. a copy of the document that will be filed upon closure of the facility with the official parish record keeper indicating the location and use of the property for solid waste disposal, unless the closure plan specifies a clean closure.

RESPONSE

Exhibit 30 is a copy of the records to be filed in the East Baton Rouge Parish Clerk of Court upon final closure of the landfill.

PART II PERMIT APPLICATION
K. FACILITY POST-CLOSURE

LAC 33:VII.521.K. FACILITY POST-CLOSURE.

1. The post-closure plan for all facilities must include the following:

   a. specification of the long-term use of the facility after closure, as anticipated; and

   RESPONSE

   Natural Resources Recovery will maintain the integrity of the cap for no less than three years after closure. Additional grading and filling will be performed to maintain the final cap, to assure a minimum top slope of four percent, and to prevent the accumulation of standing water. Annual reports concerning the integrity of the cap for a period of three years after closure will be submitted to LDEQ. There are no long term use plans for the facility after closure.

b. the cost of conducting post closure of the facility, based on the estimated cost of hiring a third party to conduct post-closure activities in accordance with the closure plan.

RESPONSE

It is estimated that post-closure activities will be minimal, and will not exceed a cost of $5,000 per year for the required three (3) year cap integrity maintenance period (maximum of $15,000). Annual reports concerning the integrity of the cap will be submitted to the administrative authority for a period of three years after closure. A breakdown of the estimated post closure care/maintenance costs is included in Exhibit 29. These costs are based upon performance by a third party.

2. The post-closure plan for Type I and II facilities must include the following:

a. the method for conducting post-closure activities, including a description of the monitoring and maintenance activities and the frequency at which they will be performed:

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

b. the method for abandonment of monitoring system, leachate collection systems, gas-collection systems, etc.;

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

c. measures planned to ensure public safety, including access control and gas control; and

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

d. a description of the planned uses of the facility during the post-closure period.

RESPONSE
This regulation is not applicable. Ronaldson Field is a Type III facility.

PART II PERMIT APPLICATION
L. FINANCIAL RESPONSIBILITY

LAC 33:VII.521.L. FINANCIAL RESPONSIBILITY.

1. The name and address of the person who currently owns the land and the name and address of the person who will own the land if the standard permit is granted (if different from the permit holder, provide a copy of the lease or document which evidences the permit holder's authority to occupy the property); or

RESPONSE

Natural Resources Recovery, Inc. owns and operates the property on which Ronaldson Field Construction/Demolition Debris Landfill is located. Mr. Sid Brian is the president of Natural Resources Recovery, Inc., 5800 Perkins Place, Ste 6A, Baton Rouge, LA 70808. Articles of incorporation for Natural Resources Recovery, Inc. and proof of land ownership have been provided in Exhibit 4.

2. The name of the agency or other public body that is requesting the standard permit; or, if the agency is a public corporation, its published annual report; or, if otherwise, the names of the principal owners, stockholders, general partners, or officers;

RESPONSE

Natural Resources Recovery, Inc. is the owner and operator of this construction and demolition debris landfill. Mr. Sid Brian is the president of Natural Resources Recovery, Inc.

3. Evidence of liability coverage, including

a. personal injury, employees, and the public (coverage, carriers, and any exclusions or limitations);

b. property damage (coverage and carrier);

c. environmental risks; and

RESPONSE

A copy of the current insurance information has been provided in Exhibit 31. The insurance information provided will be updated annually as required.

4. Evidence of financial assurance mechanism for closure and/or post-closure care;

RESPONSE

Natural Resources Recovery, Inc. has provided a financial assurance mechanism acceptable to the Administrative Authority as Exhibit 32.

PART II PERMIT APPLICATION
M. SPECIAL REQUIREMENTS

LAC 33:VII.521.M. SPECIAL REQUIREMENTS

The administrative authority may require additional information for special process or systems and for supplementary environmental analysis.

RESPONSE

This requirement is acknowledged and understood

SECTION 4
PART III PERMIT APPLICATION
(IT QUESTIONS RESPONSE)

IT RESPONSES
NATURAL RESOURCES RECOVERY, INC.
RONALDSON FIELD TYPE III CONSTRUCTION AND DEMOLITION DEBRIS/WOODWASTE LANDFILL AND RESOURCE RECOVERY AND RECYCLING FACILITY
OCTOBER 2006

Natural Resources Recovery, Inc. ("NRRI") provides these IT Responses in further support of its application for renewal of its Ronaldson Field Type III Construction and Demolition Debris/Woodwaste Landfill and Resource Recovery and Recycling Facility, solid waste permit, No. P-0318, issued December 10, 1997, as well as the requested modifications.

The Solid Waste Regulations at LAC 33:XII.523 mandate submission of supplementary information in response to questions which initially evolved from the Louisiana Supreme Court's decision in Save Ourselves v. Envtl. Control Comm'n, 452 So.2d 1152 (La. 1984), and that have been modified by In the Matter of Rubicon, Inc., 95-0108, La. App. 1st Cir. 1996), 670 So.2d 475, as well as La. R.S. 30:2018. In accordance with Article IX, Section 1 of the Louisiana Constitution and La. R.S. 30:2014(A)(4), the LDEQ Secretary fulfills his public trustee responsibilities during the permitting process, in part, through consideration of information regarding:

I. Have the real and adverse environmental effects of the proposed project been avoided to the maximum extent possible;

II. Does a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of the project demonstrates that the latter outweighs the former; and

III. Are there alternative projects, alternative sites or mitigating measures which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits to the extent practicable?

This submission provides the information necessary for LDEQ to evaluate and renew NRRI's Ronaldson Field permit.

FACILITY HISTORY

The LDEQ authorized NRRI to construct and operate a Type III Construction & Demolition ("C&D") Debris/Woodwaste Landfill and Resource Recovery and Recycling Facility, Ronaldson Field, on December 10, 1997 after fully analyzing its permit application, responses to IT Questions and addressing and responding to public comments. LDEQ memorialized its decision in a Basis for Decision of the same date concluding that this facility is an environmentally beneficial component of the State's

solid waste management system and that the positive environmental, economic and social benefits far outweigh any minimal environmental impacts. This conclusion, that Ronaldson Field is an environmentally beneficial component of the State's solid waste management system as well as the minimal environmental impacts, not only remains true today but is amplified by NRRI's significant reuse, recovery and recycling achievements and good stewardship as discussed further herein.

The facility operates under Solid Waste Standard Permit No. P-0318, stormwater discharge permit No. LA0102687, Minor Source Air Permit No. 7777-00427-00[1], a Best Management Plan for composting of yard and wood wastes and a sanitary sewer discharge permit No. LAG531162. Following permitting in December 1997, NRRI commenced construction of the facility and opened for business during June 1998. LDEQ's Solid Waste Regulations define a Type III facility as "a facility used for disposing or processing of construction/demolition debris or wood waste, composting organic waste to produce a useable material, or separating recyclable wastes." LAC 33:VII.115. A separation facility is defined as "a solid waste facility at which recyclables are separated from the solid waste stream for future use." *Id.* NRRI's operations, in fact, include all of these, e.g., separation of recyclables, reuse of materials, crushing concrete for reuse, grinding wood wastes for use as alternative fuel, composting yard and woody wastes to generate a plethora of products for yards and disposing only those C&D wastes having no further value. Essentially, Ronaldson Field has operated as a soils facility, a concrete recycling plant, a wood waste facility and, lastly, as a landfill for those items that cannot be recycled. NRRI has successfully performed these functions in an environmentally friendly manner for the last 9 years.

FACILITY OPERATIONS

There are several components to NRRI's operations. The first is a Type III C&D permitted landfill which receives construction and demolition debris and wood wastes that cannot be recovered or recycled. The facility receives only nonhazardous waste generally not considered water-soluble, including, but not limited to, metal, concrete, brick, asphalt, roofing materials (shingles, sheet rock, plaster) or lumber from a construction and demolition project. Though it occasionally receives asbestos-contaminated waste, white goods, furniture, or treated lumber mixed with appropriate wastes, NRRI separates these wastes, places each in appropriate containers and/or areas for offsite disposal at the City/Parish Municipal Landfill ("MSW"), the North Landfill. The facility also receives wood wastes which includes yard waste, including vegetative matter resulting from landscaping, maintenance or land-clearing operations and all of the East Baton Rouge Parish yard waste, including tree and shrubbery leaves and limbs, grass clippings, etc., and types of waste typically generated by sawmills, plywood mills, and wood yards associated with the lumber and paper industry, such as, wood residue,

[1] Ronaldson Field has received and recycled concrete into useable aggregate material. However, this material is excluded from the permitting and disposal standards of the Solid Waste Regulations and, therefore, more often, it is disposed and not brought to Ronaldson Field. When Ronaldson Field accumulates an adequate amount of concrete to make it economically viable to crush, NRRI brings in equipment and recycles the concrete.

cutoffs, wood chips, sawdust, wood shavings, bark, wood refuse and plywood or other bonded materials that contain only phenolic-based glues or other glues that are specifically approved by LDEQ.

Second, Ronaldson Field is a resource recovery and recycling facility that LDEQ defines as a process by which solid waste that retains useful physical or chemical properties is reused or recycled for the same or other purposes, including uses for energy generation. In this regard, NRRI removes a considerable amount of material, such as, metal, lumber and wood waste, from the waste stream and returns it to the market for useful purposes. Another example is that NRRI crushes concrete that would otherwise be disposed and returns the material to the market place for use as road aggregate. Wood waste is another example. Wood waste is only land filled when its reuse is not viable. Otherwise, yard waste and wood waste is used, onsite or after transfer to another facility, to make a variety of products sold to the consumer. These latter products include, but are not limited to, alternative fuel for industry, bedding compost, soil amendments, garden mixes, bed builders, top dress mulches and tree mulches. In fact, NRRI holds the wood and yard waste contract for the City/Parish that was just renewed for a 10 year period. All of the wood and yard waste collected in the City/Parish, under the contract, should be delivered to Ronaldson Field for use of the wood and green wastes for composting and development of its other products. Some wood wastes that are not susceptible to recycling may require land filling. For this reason, the contract requires availability of a Type III C&D/Wood Waste landfill in addition to the recycling operations.

NRRI proposes three changes in addition to the renewal of the permit. The first is allowance of receipt of materials from other parishes, especially those within an economically viable distance to move such materials. The second is clarification of the side slope of the landfill to allow for the 3:1 slide slope allowed in the regulations and corresponding height increase. The third is to increase weekly waste receipts.

FACILITY BENEFITS

1. Resource Recovery and Recycling

NRRI is a locally-owned company which commenced its operations with "a vision of making a positive difference in how Baton Rouge handles waste." *See* Exhibit "A", Baton Rouge Government Website, Recycling Office, http://brgov.com/recycle/natresources.htm. Ronaldson Field recovers considerable resources from waste streams that would previously merely be buried in the City/Parish North Landfill, a Municipal Solid Waste Landfill ("MSW"). Instead, NRRI puts these resources back into the stream of commerce for beneficial use. The City/Parish considers Ronaldson Field as "a better alternative for waste management." *Id.* In 1999, NRRI contracted with East Baton Rouge Parish to recycle unbundled wood. Today, brush piles, tree limbs, yard trimmings and Christmas trees are recycled rather than disposed in the North Landfill in proven composting management techniques to create premium soil mixes and mulches. As one reporter wrote, NRRI is "turning trash into treasure." *See* Exhibit "B", EBR benefits by recycling of yard, wood waste, Sunday Advocate, May 14,

2000. The East Baton Rouge government recently reported that tonnage buried at the North Landfill declined for the first time since 1993 due to recycling efforts which are now diverting approximately 33% of the waste load. *See* Exhibit "C", EBR residents' recycling efforts divert 32.8 percent of waste load, Morning Advocate. Ronaldson Field and NRRI contribute significantly to this effort ensuring that materials that can be recovered, as well as those that do not require disposal in valuable municipal landfills, are instead recovered or disposed in appropriate facilities. The Baton Rouge Parish government also indicated recently that the commercial recycling of materials, such as C&D wastes, actually surpasses the residential program. *See* Exhibit "D", Some good news on recycling front, The Advocate. In fact, due in part to NRRI's operations, the East Baton Rouge recycling program is noted for being among the best in Louisiana. *See* Exhibit "E", Lafayette, East Baton Rouge recycling programs among best in state, Sunday Advocate, Feb. 3, 2002. NRRI's contract with the City/Parish was just renewed for a period of 10 years. Therefore, Ronaldson Field and NRRI will go on serving a very important waste management need in East Baton Rouge Parish by providing separation and recycling as well as alternative disposal. Ronaldson Field is a very important component of the City/Parish recycling program by virtue of providing the services under the wood and yard waste contract newly renewed for an additional 10 year period.

Evidence of NRRI's success in providing a positive impact to solid waste management in East Baton Rouge Parish includes its receipt of the Keep America Beautiful Clean Business of the Year Award for year 2000, *see* Exhibit "F", as well as recognition by BioCycle, Journal of Composting and Organics Recycling, as a leader in building strong markets for recycled materials in the form of compost and mulch. *See* Exhibit "G".

The following are a few examples and estimates of NRRI's success in recycling and contributing to sound solid waste management for the years 2001 through 2005:

Total Outbound Material[2]	311,941 cubic yards
Concrete Recycled	46,094 tons
Wood for fuel	74,205 tons

The amendment of the side slope to reflect what is allowed under the Solid Waste Regulations will allow NRRI to continue to operate throughout the full life of the City/Parish contract ensuring that NRRI meets its commitments thereunder. Furthermore, it extends the life of the facility by as much as 6-8 years beyond the approximately 6-8 years remaining assuring that all of the benefits, including jobs at the facility, continue. Increasing the incoming rates will allow the facility to meet the existing needs of the community.

[2] Outbound material includes waste recovered from incoming loads and either sent out for reuse or recycling.

2. Diversion of Wastes from North Landfill – State of the Art Solid Waste Management and Significant Savings

One of the most important benefits of Ronaldson Field is its diversion of harmless wastes from disposal in the North Landfill, a landfill constructed at significant costs to provide disposal for and protection from potentially harmful substances. Each ton of C&D, wood waste and yard waste that is not disposed at the North Landfill serves to ensure its higher utilization for disposal of harmful wastes while also extending its life. Extending the life of the North Landfill serves to significantly reduce the costs of solid waste management for all of the citizens of East Baton Rouge Parish.

Over just the last five years, 2001-2005, Ronaldson Field and NRRI have accommodated 139,003 tons (583,816 cubic yards) of C&D debris. In addition, the permittee has diverted 1,054,525 cubic yards of organic wastes or, in other words, yard and green wood wastes. This means that this component of the solid waste management system diverted 1,638,341 cubic yards of material that did not need to be disposed in the North Landfill. This is a state of the art alternative to Municipal Solid Waste land filling. *See* Exhibit "H".

In addition, it generates a significant savings for all of the citizens of East Baton Rouge Parish. The costs of disposal at the North Landfill is $28 per ton for wastes originating in East Baton Rouge Parish and $32 per ton for waste originating elsewhere. No one really knows what the actual, real costs of disposal at the North Landfill when all accounted for. Dr. James Richardson, in his economic analysis, estimates the savings in tipping fees alone amount to $5.6 to $25.7 million. *See* Exhibit "J". Considering the subsidies and other costs, it is quite conceivable that the tipping fee only accounts for about one-half the total costs.

This information is provided to LDEQ as responses to the IT Questions and for LDEQ's use in evaluating the renewal application with appropriate modifications.

IT QUESTIONS

I. Have the Real and Adverse Environmental Effects of the Proposed Project Been Avoided to the Maximum Extent Possible?

Yes, all potential adverse environmental impacts have been avoided to the maximum extent possible. In responding to this question, NRRI incorporates by reference its initial IT Responses dated July 29, 1996, *see* Exhibit "I", and elaborates below.

In its December 10, 1997 Basis for Decision, also incorporated herein by reference, LDEQ concluded that NRRI had avoided any potential and real adverse impacts to the maximum extent possible for, in summary, for the following reasons: (1) there are no sensitive wildlife habitats within the project; (2) there are no affected wild or scenic rivers; (3) there are no endangered species; (4) wetlands are protected from the

project; (5) there are no park lands; (6) there are no prime farmlands; (7) there are no ecologically critical areas; (8) there are no cultural resources on site or affected; (9) there are no historically significant features; and (5) all contact storm water runoff is collected and only discharged in accordance with a LPDES permit issued by LDEQ and that requires monitoring prior to discharge.

LDEQ concluded that media that could possibly be affected were groundwater and water. To this end, the following addresses those media.

A. Groundwater

LDEQ properly concluded that groundwater is protected by the existing geology and through addition of a clay liner, which was, in fact, constructed by NRRI. First, geotechnical soil borings showed that existing in situ soils had a compaction/permeability (hydraulic conductivity) on the order of 1.21×10^{-8}. This low permeability is more than 10 times more impermeable than the standards set by EPA for re-compacted clay liners for even hazardous waste landfills. Furthermore, NRRI proposed and did construct a 5 foot thick re-compacted clay layer at the bottom of the landfill fully protecting groundwater from any migration. The geology of the area does not exhibit any faults. Though the preexisting soils and the clay liner ensure a complete barrier, this area is considered a low Recharge Potential Area.

Each phase of the landfill is covered as it is filled protecting the storage area from infiltration. Upon closure, the cap, as proposed herein, constructed to meet all requirements of the regulations and the permit, will protect the landfill from infiltration in coordination with post-closure monitoring.

Furthermore, by allowing the facility to construct a side slope consistent with what is allowed under the Solid Waste Regulations, 3:1, the facility will provide a slope that discourages infiltration and, therefore, discourages the generation of any minimal leachate while also providing for a safe and more manageable landfill cap. Expansion of the service area will have no impact on groundwater.

B. Water

In its prior Basis for Decision, LDEQ noted that runoff discharges needed to be protective of the nearby wetlands. In fact, NRRI's storm water runoff discharges are relatively minimal and are protective of all surface waters by virtue of its longstanding compliance with the LDEQ LPDES permit issued for the facility.

LDEQ further noted that given the types of materials received at NRRI, the discharges only had a potential threat to human health, animals, plants or vegetation if the facility accepted inappropriate wastes for disposal. The facility only accepts C&D, wood and yard wastes. As trucks enter the facility, each load is inspected at the weigh in station and again at the face of the landfill if it is C&D and elsewhere if it is wood or green wastes alone. While a load of inappropriate waste is turned away, if any

inappropriate wastes are included in an otherwise proper load, these are either rejected or placed into rolloff containers for shipment to the North Landfill. Therefore, there is no threat from discharges due to the presence of inappropriate wastes.

LDEQ issued a LPDES Permit, No. LA0102687, to NRRI that requires the facility to test storm waters during each discharge and to ensure that its discharges are compliant. The permit requires monitoring for parameters that ensure full protection of the environment, especially the surface waters to which the discharge is directed. The permit required and NRRI prepared a Stormwater Pollution Prevention Plan (SWPPP) that ensures protection from exposure of storm water to potential pollutants. NRRI also maintains a Spill Prevention and Countermeasures Plan (SPCC) the purpose of which is to ensure that oils or fuels are maintained within confined areas and not exposed to storm waters. Ronaldson Field also implemented years ago a recycling of collected storm waters for application as a dust suppressant on facility roads and were putting it on compost piles. Consequently, there have been long periods of zero discharge. This reuse of these waters does not generate any runoff and keeps dust from becoming airborne.

Through its redundant systems that protect against entry of any inappropriate wastes, facility management and geologic protections, Ronaldson Field has maximized avoidance of any real adverse impacts to the environment. Ronaldson Field, through its careful operations, storm water management and monitoring provides full protection of groundwater and surface waters. Clearly, NRRI has implemented redundant systems that provide avoidance of real adverse environmental effects to the maximum extent possible.

NRRI previously and to this day considers other potential environmental issues in its daily operations and ensures full protection is factored into its policies and daily operations. Water will not be affected by the proposed changes.

C. Wetlands

Full protection of the nearby wetlands is provided through daily operations and facility construction. Ronaldson Field maintains a separating barrier from the facility. Furthermore, NRRI's facility is constructed so that all storm waters falling within the facility are collected, treated and discharged only in accordance with the LPDES permit. The wetlands will not be affected by the proposed changes.

D. Human Environment

NRRI operates its facility consistent with only the highest standards of environmental stewardship and corporate citizenship. NRRI is a member of the community, not just the operator of a facility. Its management takes pride in ensuring that any potential impacts to nearby communities is avoided to the maximum extent possible and, to this end, Ronaldson Field has been completely successful. As noted in the 1996 responses to the IT Questions, NRRI's facility has no impact on nearby communities and, in fact, is located within an Industrial Area under the Plan of Government as developed by the City/Parish.

Ronaldson Field's unique situs between the North Landfill and the major C&D generation centroid renders its location highly desirable for its reuse, recycling and land filling operations. Trucks enter primarily from LA Highway 19 avoiding and minimizing traffic through any nearby populated areas. As noted in the 1996 IT responses, the entrance to Ronaldson Field is located as far from populated areas as possible. In fact, there are no residences between the facility and LA Highway 19 which contains areas zoned only for industrial.

The changes suggested by NRRI will not have any material impact on its abilities to ensure all real and adverse impacts are avoided. Quite to the contrary, the geology of the area combined with the superb operational skills developed by NRRI for the basis of the very protections that ensure that correction of the slide slope of the landfill will not have any adverse impact on human health or the environment. Furthermore, NRRI's award-winning operations ensure that these minimal changes will only enhance protection of the environment and human health.

E. Aesthetic Impacts

Ronaldson Field's M-2 Heavy Industrial Zoning places it square in an Industrial Area No. 4. In order to shield the surrounding areas, NRRI encouraged native and other vegetation to grow in a zone between the road and the facility operations which are buffered on the back by a secluded area. Furthermore, NRRI constructed an approximately 25 foot high berm strategically located along portions of the boundary of the facility to ensure any minimal adverse impact is minimized. The entrance to Ronaldson Field is remote and designed to encourage all traffic to use the LA Highway 19 approach through industrially zoned property. The proposed changes will have minimal effect and will ensure a green and protective cap that provides an appropriate slope.

Clearly, NRRI, since 1997, has not caused any adverse impacts to the environment or human health. NRRI instead operates with good stewardship and good corporate citizenship in mind at all times. Ronaldson Field is an integral component of the solid waste reuse, recycling and management program for Louisiana.

II. Does a Cost Benefit Analysis of the Environmental Impact Costs Balanced Against the Social and Economic Benefits of the Project Demonstrate that the Latter Outweighs the Former?

Yes. An examination of the benefits of Ronaldson Field as well as real adverse environmental impact demonstrates that this facility's benefits far outweigh any marginal environmental costs. Ronaldson Field is the area's only C&D facility and, for almost 10 years now, has provided significant cost reduction and efficient management of harmless wastes and considerable recycling of large components of the waste stream. There are no other permitted C&D facilities in East Baton Rouge Parish or in any of the adjoining parishes with the exception of D&J Fill, Inc. in Ascension that is slated for closure. Yet, this is also the center of economic activity today in Louisiana and two of these parishes,

Ascension and Livingston, have been the two fastest growing parishes in Louisiana for several of the last 10 years. Combined with the redevelopment activities in East Baton Rouge, these growth and redevelopment activities generate considerable C&D materials that should not be disposed in more expensive landfills constructed for other harmful waste materials. In addition, Ronaldson Field has been instrumental in ensuring that East Baton Rouge Parish meets recycling goals set for it and in making East Baton Rouge Parish's Recycling Program one of the best in the state. The facility's operations over the years have not caused any real adverse impacts to the environment or to human health. The facility is located on industrially zoned land in an ideal location between the redevelopment areas that generate so much C&D debris and the North Landfill. Ronaldson Field clearly provides social and economic benefits that far outweigh any adverse environmental impacts, including, but not limited to, job maintenance and creation, direct and indirect economic stimulation, recycling and reuse, proper disposal of C&D and wood wastes that cannot be recycled, discourages illegal disposal and reduction in overall disposal costs by diverting harmless materials from the City/Parish MSW, the North Landfill.

The need for Ronaldson Field can be shown simply by review of the wastes volumes handled by the Facility over the last 5 years. From 2001-2005, NRRI handled 139,003 tons (583,816 cubic yards) of C&D debris and 1,054,525 cubic yards of organic wastes, yard and green. Therefore, the facility diverted 1,638, 341 cubic yards of materials that should not be disposed in the North Landfill and much of which was reused or recycled. During this same period, NRRI's total outbound volume was 311,941 cubic yards plus 46,094 tons of road aggregate (crushed concrete) plus 74,205 tons of alternative fuel (ground wood waste) for a total of 311,941 cubic yards and 120,299 tons of recycled materials officially reintroduced into the stream of commerce. As a result, local businesses and the City/Parish saved considerable sums in tipping fees and costs associated with municipal landfill development by extending the life of the North Landfill at only negligible, if any, environmental costs.

Potential Non-monetary Environmental Impacts:

Wildlife	None
Native Vegetation	None
Water Quality	Protected by permit compliance, storm water recycling, SPCC and SWPPP
Air Quality	Dust is suppressed by recycling of storm water; other emissions are insignificant
Loss of Wetlands	None, protected by buffer zone
Noise and Visual	Wide, landscaped buffers surround the facility
Increased Traffic	An increase in waste volumes only requires minimal traffic changes that are not likely to be noticed. Trucks are encouraged to enter from LA Highway 19.

Social and Economic Benefits:

Reuse and Recycling	Reentry of materials into the stream of commerce; instrumental in making East Baton Rouge Parish's Recycling Program one of the best in the state and achieving its recycling goals
Extends Life of North Landfill	Diversion of harmless materials
Efficient and Wise Solid Waste Management	Proven safe, economic and efficient alternative to disposal in the North Landfill
Safe, regulated alternative to unlawful disposal	Minimized level of unlawful disposal occurring throughout parish
Job Maintenance and Creation	Maintains existing jobs and creates new Construction jobs
Direct and Indirect Economic Stimulation	See below
Reduction in Costs of Disposal	Disposal of harmless materials In Type III facility rather than the City/Parish MSW, the North Landfill

Dr. James A. Richardson, Alumni Professor of Economics, Louisiana State University prepared an "Economic Analysis of the Impact of the Continued Operation and Expansion of a Type III Construction and Demolition Debris/Wood Waste Landfill and Resource Recovery and Recycling Facility in East Baton Rouge Parish," a copy of which is attached hereto as Exhibit "J". He discusses the economic impact of renewal of the Ronaldson Field Permit as well as the impact of expanding the service area, increasing incoming rates and clarifying the side slope of the landfill. Several of Dr. Richardson's observations are included below:

- NRRI currently has revenues exceeding $7 million with 35 employees and a payroll of $1.6 million, or an average of $45,000 per year. NRRI expects continuing operations at slightly above $5 million per year.

- Capital expenditures to date reached nearly $5 million and the proposed expansion will require another $1 million in capital expenditures.

- The annual direct and indirect economic impact on East Baton Rouge Parish of recurring operations after renewal of the permit totals $20.4 million in overall business transactions generating $3.9 million in household earnings supporting 145 jobs. The existing facility should provide for operations for only the next 6-8 years.

- Construction activity associated with the proposed expansion will require new capital expenditures of $1 million with a direct and indirect impact to the local community of $3.2 million in related business activity with creation of 37 new jobs generating $0.9 million in new household income. The expansion should extend the life of Ronaldson Field for another 6-8 years beyond its existing life.

- Annual direct and indirect economic impact of extending the life of Ronaldson Field is approximately $20.4 million in business transactions, $3.9 million in household earnings and 145 new jobs for the additional 6-8 years.

- In addition to the direct and indirect economic impacts of recurring operations and expansion, Ronaldson Field generates significant savings for East Baton Rouge Parish in the form of lower tipping fees, extension of the life of the North Landfill and other cost savings. Though it is difficult to estimate the total costs of using the North Landfill, savings to the Parish on tipping fees alone amount to $5.6 to $25.7 million.

- Lastly, Ronaldson Field provides alternative disposal options for over 16,000 business establishments in the Baton Rouge Metropolitan Area with over 280,000 employees while reducing the costs associated with doing business as well as safely providing a break to taxpayers who must finance solid waste management.

Though modeling is not intended to generate totals for extended periods, NRRI suggests the following extrapolations of Dr. Richardson's data. For instance, operation of Ronaldson Field for the additional 6-8 years beyond its current life expectancy due to the expansion could conceivably amount to approximately $163.5 million in related business activity, $31.2 million in personal earnings with 145 jobs, given the projected annual direct and indirect economic impacts.

Ultimately, if NRRI extrapolates Dr. Richardson's data on the annual recurring direct and indirect economic impact of renewal, and its existing life, as well as the expansion, and its related extended life, total potential direct and indirect economic impact over a 16 year period could rise to $326.4 million in business transactions, $62.4 million in household earnings and maintenance of 145 jobs.

It is also worth noting separately Ronaldson Field's role in the recovery after Hurricane Katrina. NRRI was a major player in the recovery effort following Hurricane Katrina, especially for East Baton Rouge Parish. In just 6 weeks, all of the yard wastes in East Baton Rouge Parish associated with Hurricane Katrina had already been collected meaning the Parish was cleaned up in just 6 weeks. This quick recovery would have taken considerably longer with much greater difficulty in the absence of Ronaldson Field and its sister facilities. This work was completed while the recovery crews were staging in Baton Rouge to ultimately to enter the more heavily impacted areas of New Orleans. NRRI's operations, including significant contribution by Ronaldson Field, served well the local community insuring Baton Rouge was back in business quickly and in a position to provide shelter and support for the many persons here from New Orleans. NRRI's and

Ronaldson Field's contribution to the community was and continues to be quite significant.

Clearly, the economic activity associated with ongoing operations and modifications add to the other significant social and economic benefits of the facility and warrant renewal and approval of the modifications and far outweigh minimal environmental impacts.

III. Are there alternative projects, alternative sites or mitigating measures which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits to the extent practicable?

No. Ronaldson Field is an existing, permitted, properly operated C&D facility located on industrial zoned land and located between the centroid of C&D generation and the North Landfill.

Alternative Projects: The only reasonable, economically viable alternatives to management of C&D wastes at a Type III facility, such as the existing Ronaldson Field, are to either dispose of the material in another landfill or burn it. Disposal in a municipal landfill is unnecessary as the existing Ronaldson Field is a state-of-the-art facility that is clearly protective of the environment and human health. Therefore, disposal in a municipal solid waste landfill, the North Landfill, is a waste of landfill space intended to provide containment and protection of the environment from potentially harmful wastes, unlike C&D. Moreover, it is a very costly alternative even when one only considers the costs of the tipping fee and not the actual costs, which include land acquisition, siting, planning, construction, etc.

Burning is an environmentally less desirable alternative due to the emissions associated therewith. Furthermore, burning generates an ash material that must be disposed. Most environmental agencies and communities disfavor burning.

No action is always an alternative; however, in this case, no action would ultimately close an existing, properly permitted and operating facility that provides a long list of benefits to the community. It would also require permitting a new facility on a green field to accommodate the needs of the State and local communities in their solid waste management and recycling programs.

Though NRRI recycles an enormous amount of the materials incoming, even as high as 55%, the remaining materials do not have further utilization and there are no proven, economically viable technologies for recycling of those remaining materials. NRRI reuses and/or recycles as much material as is reasonable to remove from the incoming materials. In addition, the expansion of the service area, the clarification of the side walls and the increased weekly rates do not favor an alternative. In fact, these changes ensure that NRRI will continue into the future providing significant reuse and recycling of C&D materials and wood and yard wastes providing its benefits to the community for a longer period. NRRI believes strongly, after 10 years of implementing

creative new technologies, that no alternative projects offer more protection of the environment without unduly curtailing non-environmental benefits.

Alternative Sites: During the years pre-dating NRRI's 1995 application, it undertook an extended and expensive alternative sites study to identify a site which provided protection of the environment and human health. After reviewing information on 55 sites and screening those, it conducted an extensive review of 6 sites. Review today of those same sites yields the same conclusion; Ronaldson Field is the most appropriate site for this facility and there are no other sites that provide more protection to the environment. *See* initial response to IT Questions incorporated by reference and attached hereto as Exhibit "I". Ultimately, both NRRI and later LDEQ concluded that Ronaldson Field provided the best protection of the environment. Ronaldson Field has operated in compliance with its permit and all environmental regulations for almost 10 years now and plans to continue to do so while also continuing to implement new technologies as these become available that may increase reuse and recycling of materials even above the current level of 55%.

LDEQ has previously determined that an alternative sites analysis is not necessary or appropriate when evaluating an existing facility, even when modifications have been requested. The requested changes, expanded service area, side slope amendment and consequent increase in landfill airspace and height as well as the request to increase weekly rates do not warrant an alternative sites analysis. Notwithstanding, NRRI conducted an analysis of the sites initially considered because these are the sites previously identified as potential waste sites by the City/Parish Government in its Comprehensive Land Use and Development Plan, Wastewater, Solid Waste and Drainage Element. For a more detailed discussion of the analysis, for comparison to each alternative site, see the initial analysis, Exhibit "I", at pp. 18-28. The following are factors that were considered, among others in the initial analysis:

Zoning	Ronaldson Field is in Industrial Zone No. 4 and zoned M-2, Heavy Industrial
Location near waste centroid	The primary location of waste generation is located within reasonable haul distances
Location near North Landfill	Ronaldson Field is uniquely located between the waste centroid and the North Landfill
No floodplain	Ronaldson Field is not located in a floodplain
Proper geologic conditions	Ronaldson Field contains stiff clays and a clay liner with permeabilities more stringent than hazardous waste landfills
Avoid of Greenfields	Ronaldson Field is an existing facility

Ready and Remote Access	Ronaldson Field is accessible via LA Highway 19 to Rafe Meyer Road
Provision of Emergency Wood waste and C&D Handling	Ronaldson Field played an important role in Katrina recovery. Furthermore, several other C&D facilities located in the eastern part of the state will ultimately be filled or brought close to capacity by the Katrina recovery effort rendering Ronaldson Field even more important.

Obviously, consideration of the appropriate factors yields the same result as in 1997. Furthermore, it is more advisable, less resource intensive or consuming and economically viable to amend the side slope and thereby increase airspace to allowed conditions under the Solid Waste Regulations than to build an entirely new facility at another location, most likely a green field. Constructing an alternative facility to accommodate this waste volume is simply not economically viable as the adjustment of the side slope and associated increase in air space only extends the life of the facility by approximately 6-8 years. That amount of airspace and life is not adequate to justify a new facility while expansion of this existing facility is economically and environmentally favorable. The same conclusion is reached when considering service area and waste volumes. There is not another C&D facility in East Baton Rouge Parish or in any of the surrounding parishes, except D&J in Ascension that is slated for closure. The need clearly exists and it is economically and environmentally preferable to use and expand an existing facility. NRRI business planning and decision making also factor in and its location close to the waste generation centroid and the North Landfill is a reasonable consideration when considering its location and its service area. *See* In re Shintech, 2000-1984 (La. App. 1 Cir. 2/15/2002), 814 So.2d 20 wherein a similar site selection process was upheld by the First Circuit Court of Appeals.

Ronaldson Field is the most appropriate location for this facility even considering modifications. The facility will not increase the number or otherwise change the wastes the facility receives nor will it otherwise change its operations. NRRI's track record is a good one, exemplified by good stewardship, good environmental management and good citizenship.

In addition, following initial permitting, the 19th Judicial District Court for the Parish of East Baton Rouge, on appeal of the permit, both initially and on remand, affirmed LDEQ's issuance of the NRRI permit, including its alternative sites analysis. In re Natural Resources Recovery, Inc., 752 So.2d 369 (La. App. 1 Cir. 2/18/2000), *writ denied*, 762 So.2d 1104 (La. 2000) and, *writ denied*, 762 So.2d 1105 (La. 2000) and (19th JDC, No. 446408, Division "H", case dismissed on remand, Nov. 20, 2000). The courts have already ruled that Ronaldson Field is the appropriate location and the changes NRRI requests are equally supported by the reasoning in the referenced permit appeal.

NRRI's operations, including Ronaldson Field, also serve as show cases of state-of-the-art C&D and Wood waste reuse, recycling and disposal. Recently, representatives

from Southern's Agricultural Extension Program, Center for International Development Programs, LSU's Horticulture Department and members of a Chinese Government delegation visited NRRI's operations, including Ronaldson Field, to learn the art of making mulch and soil amendments. The City/Parish endorsed the project and Mayor Kip Holden received the collection of professionals to encourage reuse and recycling.

Ronaldson Field is an existing facility, properly permitted and operated. The siting of a new facility on other properties is an alternative to expansion; however, the absence of any real adverse impacts to expansion of the service area, the adjustment in the side slope resulting in a height increase and incoming volumes do not increase any real adverse impacts and the social and economic benefits far outweigh any negligible impacts. Clearly, continued operation and expansion of the existing facility is favorable to identifying a new, most likely greenfield, site and unnecessarily developing a new facility. NRRI operates an effective, well-equipped recycling and landfill operation. The increase in space will allow for an increase in volume of 1.5 million cubic feet. At the reduction, compaction ratios achieved by NRRI, i.e., approximately 3:1, this provides for land filling of approximately 4.5 million cubic feet of innocuous C&D materials, after recycling.

No alternative site can achieve greater environmental or human health protection than has NRRI at Ronaldson Field, an existing facility. The environmental, social and economic benefits clearly warrant renewal and the limited expansions requested by NRRI.

Mitigating Measures: Over its years of operations, NRRI has continually been sensitive to environmental, health and safety and neighboring issues. NRRI has achieved a stellar environmental compliance record, an untarnished health and safety record and has implemented many mitigating measures. Ronaldson Field is landscaped and fenced at the entrance. In fact, the entire facility is fenced and is buffered from any adjacent properties. NRRI spent considerable sums encouraging growth of native vegetation and other in the buffer between the facility and Rafe Mayer Road as well as allowing a buffer in some places even more than 250 feet from adjacent properties. In addition, Ronaldson Field constructed a soil berm approximately 25 feet high at a strategic location near a facility boundary. Ronaldson Field maintains compliance with its LPDES permit protecting any surface waters from any potential exposures. In this regard, NRRI's Stormwater Pollution Prevention Program requires, among other things, (1) care to avoid and respond to any spills, (2) take care to avoid rainwater contact with materials, (3) apply interim cover material to minimize rainwater contact, (3) indoor storage of regulated materials, such as, fuels, (4) inside storage of liquid containers, (5) good housekeeping, including clean work areas, proper storage of containers, drums and bags, and proper inventory and labeling, (6) preventive maintenance, including proper maintenance of containment areas, (7) regular visual inspections and (8) compliance with spill response guidelines. NRRI controls dust by applying storm water to roads using a tank truck. In fact, it has gone for considerable periods with zero discharge. NRRI encourages trucks to approach and depart the site from LA Highway 19 thereby avoiding

any populated areas. Obviously, NRRI has implemented considerable mitigating measures.

In addition, working with nearby communities, NRRI established and is funding a trust fund managed by the Baton Rouge Area Foundation that benefits the members of the Alsen and St. Irma Lee communities. It is funded by a $1.00 contribution from each truck that delivers materials to Ronaldson Field. However, use of the fund is determined entirely by a committee of persons from these two communities for purposes the committee decides are worthwhile. NRRI, as a good neighbor, has made considerable donations of materials and funds since the commencement of operations for community functions and improvements.

IV. Environmental Justice/Civil Rights

EPA's Office of Civil Rights in the Michigan Select Steel Title VI Complaint, *see* "Allegation Regarding Air Quality Impacts," pp. 25-6, EPA File No. 5R-98-R5, The Office of Civil Rights, dated October 30, 1998, determined:

> The environmental laws that EPA and the states administer generally do not prohibit pollution outright; rather, they treat some level of pollution as "acceptable" when pollution sources are regulated under individual, facility-specific permits, recognizing society's demand for such things as power plants, waste treatment systems, and manufacturing facilities. In effect, Congress—and, by extension, society—has made a judgment that some level of pollution and possible associated risk should be tolerated for the good of all, in order for Americans to enjoy the benefits of a modern society—to have electricity, heat in our homes, and the products we use to clean our dishes or manufacture our wares. Similarly, society recognizes that we need facilities to treat and dispose of wastes from our homes and businesses (such as landfills to dispose of our trash and treatment works to treat our sewage), despite the fact that these operations also result in some pollution releases. The expectation and belief of the regulators is that, assuming that facilities comply with their permit limits and terms, the allowed pollution levels are acceptable and low enough to be protective of most Americans.
>
> EPA and the states have promulgated a wide series of regulations to effectuate these protections. Some of these regulations are based on assessment of public health risks associated with certain levels of pollution in the ambient environment. The NAAQS established under the Clean Air Act (CAA) are an example of this kid of health-based ambient standard setting. Air quality that adheres to such standards is presumptively protective of public health. Other standards are "technology-based," requiring installation of pollution control equipment which has been determined to be appropriate in view of pollution reduction goals. In the case of hazardous air pollutants under the CAA, EPA sets technology-

based standards for industrial sources of toxic air pollution. The maximum achievable control technology standards under the Clean Air Act are examples of this kind of technology-based standard setting. After the application of technology-based standards, an assessment of the remaining or residual risk is undertaken and additional controls implemented where rejected. [FN not included]

Title VI and EPA's implementing regulations set out a requirement independent of the environmental statutes that all recipients of EPA financial assistance ensure that they implement their environmental programs in a manner that does not have a discriminatory effect based on race, color, or national origin. If recipients of EPA funding area found to have implemented their EPA-delegated or authorized federal environmental programs (e.g., permitting programs) in a manner which distributes the otherwise acceptable residual pollution or other effects in ways that result in a harmful concentration of those effects in racial or ethnic communities, then a finding of an adverse disparate impact on those communities within the meaning of Title VI may, depending on the circumstances, be appropriate.

Importantly, to be actionable under Title VI, an impact must be both "adverse" and "disparate". The determination of whether the distribution of effects from regulated sources to racial or ethnic communities is "adverse" within the meaning of Title VI will necessarily turn on the facts and circumstances of each case and the nature of the environmental regulation designed to afford protection. As the United States Supreme Court stated in the case of *Alexander v. Choate*, 469 U.S. 287 (1985), the inquiry for federal agencies under Title VI is to identify the sort of disparate impacts upon racial or ethnic groups which constitute "sufficiently significant social problems, and [are] readily enough remediable, to warrant altering the practices of the federal grantees that had produced those impacts." *Id.* at 293-94 (emphasis added).

Letter from Anne E. Goode, Director of EPA's Office of Civil Rights, to Father Phil Schmitter and Sister Joanne Chiaverni, Co-Directors, St. Francis Prayer Center.

In the Louisiana Environmental Quality Act, the Louisiana Legislature declared that its purpose is the "maintenance of a healthful and safe environment". La. R.S. 30:2003.A. The Legislature further declared in the Solid Waste statute that "the disposal and utilization of solid waste is a matter of vital concern to all citizens of this state, and that the safety and welfare of the people of Louisiana require efficient and reasonable regulation of solid waste disposal practices as well as a coordinated statewide resource recovery and management program." La. R.S. 30:2152. In keeping with the Legislature's directives, LDEQ promulgated a comprehensive set of solid waste management regulations citing specifically that provision. To this end, LDEQ promulgated standards governing storage, collection, recovery and reuse and disposal.

LAC 33:VII.101.A. LDEQ stated further as its purpose to "implement a management program that will protect the air, groundwater, and surface water, and the environment from pollution from solid wastes and thus eliminate the potential threat to human health from such pollution". LAC 33:VII.101.B. LDEQ also developed rules to put into practice the directive "to utilize solid waste for useful purposes whenever practicable." LAC 33:VII:101.D; *see* La. R.S. 30:2305 *et seq.*

With regard to Type III facilities, such as Ronaldson Field, LDEQ promulgated standards at LAC 33:VII.Chapter 7, Subchapter D that ensure "maintenance of a healthful and safe environment" and that "protect the air, groundwater, and surface water, and the environment from pollution from solid wastes and thus eliminate the potential threat to human health from such pollution. *See* La. R.S. 30:2003.A. and 2152 and LAC 33:VII.101.B. In fact, LDEQ issued a Solid Waste Permit based on the comprehensive Solid Waste Regulations to NRRI to operate Ronaldson Field on December 10, 1997 after critical review and analysis of its application and other supporting materials. The permit requires compliance with all relevant Louisiana Solid Waste Regulations and specifically the Type III standards which are deemed protective of human health.

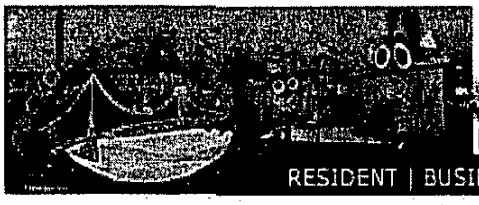
Furthermore, storm water at the facility is managed pursuant to an LPDES permit issued by LDEQ to NRRI. This permit provides protection of the environment from any minimal potential discharge.

LDEQ's regulations and NRRI's permits and operations ensure protection of the environment and of human health and the environment. Therefore, this facility is protective of the environment and human health and there is no adverse impact.

During June 1998, several organizations filed a complaint with the U.S. Environmental Protection Agency, No. 07R-98-R6. This complaint was informally resolved through a supporting voluntary agreement rendering the matter closed. NRRI's operations are protective of the environment and human health.

CONCLUSION

NRRI has operated Ronaldson Field for almost 10 years in an environmentally protective manner with respect for all aspects of the environment as well as any nearby population centers and its own employees. NRRI has a demonstrated record of environmental compliance, good stewardship and top level corporate citizenship and relations with local communities. Ronaldson Field is a significant contributor to the acknowledgement of East Baton Rouge Parish as having a top recycling operation and, upon renewal, and approval of the modifications, NRRI will continue to build upon this record.



Recycling Office

Baton Rouge Government Website

RESIDENT | BUSINESS | VISITOR | GOVERNMENT | SEARCH | DIRECTORY | HOME

Recycle Home
Additional Educational Opportunities
Recycling Foundation Collection Routes
Classroom Activities
Community Drop-off
Contact Information
Curbside Recycling
Frequently Asked Questions
Household Hazards
Jewelry Contest Winners
Natural Resources Recovery
Other Recycling Opportunities
Paper & Plastic
Recycle at Work
Recycle Oil & Antifreeze
Recycle Medical Supplies
Reduce Junk Mail
Reuse
Smart Shopping
Seasonal Collections
Special Services
Yard Smart Earth Wise
Where to buy Recycled Products

Natural Resources Recovery

Natural Resources Recovery, Inc. (NRRI) is a locally owned company whic began with a vision of making a positive difference in how Baton Rouge handles waste. Natural Resources Recovery, Inc., currently recovers a nu of different materials from waste streams previously buried in the City Par landfill.

As the first facility of its type in East Baton Rouge Parish, NRRI's Ronaldso Field has been very well received as a better alternative for waste management. The facility receives materials such as construction and demolition debris, concrete, pallets, wood, and yard waste. These materi are now diverted from the North Landfill, which is the Parish's only other landfill and is operated at the expense of the taxpayers of East Baton Rou

Support Local Recycling Efforts

Visit Nature's Best Organic Soil Center at 9500 Perkins Road.

Local McDonald's restaurants and Magnolia Mound Plantation are benefitin from the rich organic mulch and soil from Nature's Best and Ronaldson Fie

The Nature's Best Organics Story

In 1999, NRRI Contracted with East Baton Rouge Parish to recycle unbunc wood waste, including brush piles, tree limbs, yard trimmings and Christm trees produced by residents of the Parish. Residents are encouraged to pl curbside significant piles of these materials to ensure that they are picked for recycling and not for normal disposal. BFI brush trucks collect the pile wood waste and deliver them to Ronaldson Field to be recycled. Natural Resources Recovery, Inc. uses recycled wood and yard waste in proven composting management techniques to create premium soil mixes and mulches. As of October 31, 2002, NRRI has recycled nearly 76,000 tons o wood waste.

The compost base soil mixes and mulches are marketed as the "Nature's E Organics" product line. Nature's Best Organics can be found in Baton Rou atNature's Best Organic Soil Center at 9500 Perkins Road or at several of local nurseries and garden centers. In addition, Lafayette is home to two additional Nature's Best Organic Soil Centers, one at 3198 Moss Street an other at 6832 Johnston Street, with a fourth location in Paincourtville at th corner of Hwy 1 and 70.

EXHIBIT A

EBR benefits by recycling of yard, wood waste

Today's column addresses our marriage to garbage and our love of landfills. You can't divorce yourself from a landfill. Our trash has to go somewhere. Landfills are always going to be around, so by working positively toward the three "R's" — Re-use, Reduce, Recycle — we can help to not fill them up so quickly. Since we have to live together, we might as well try to have a happy marriage.

Remember when the Devil's Swamp sanitary landfill was closed and a new site was being sought? Residents voiced objection to every proposed location. "NIMBY" — Not In My Back Yard — was their cry.

No one loves a landfill. No one until 22 months ago. That is when the city-parish government made arrangements with Ronaldson Field, a Type III-construction and demolition landfill and recycling and soils facility, to recycle — not landfill — yard and wood waste.

What this means is that rather than filling up our sanitary landfill the parish is turning "trash into treasure" by collecting unbagged yard waste, felled trees and the like into a valuable organic amendment by composting it.

Several products are made from recycled East Baton Rouge Parish yard and tree trimmings and are sold by Natural Resources Recovery Inc. in bags or in bulk under the brand name Nature's Best. They are Organic Tree Mulch, Organic Top Dress, Organic Bedding Compost, Organic Garden Mix (also called Planting Humus) and Organic Potting Mix. The products are available at local nurseries.

All government regulations are followed and in fact, are exceeded during the composting process, resulting in a product that is both safe and pleasant to handle and garden with.

The finished compost mixes have a pH of 5.95 to 6.22.

The most important aspects of using compost are its effects on the soil's internal drainage, workability and nutritive retention. Composted organic matter helps bind soil particles together, forming aggregates which improve drainage, soil air space and improved plant root growth. When fertilizer is applied, it remains in the soil longer because of the organic matter, meaning less is wasted and washed into the street ...ter and more is used by the plant ...intended. Using compost reduces ...e amount of pesticides used in the environment. Because plants grow better and have a stronger root system, they are better able to tolerate and resist pests and are faster to recover from environmental stress. All this is a result of recycling our organic waste rather than landfilling it.

Is there a downside from collecting and recycling the parish's organic trash? None that I can think of. But it is disappointing that not all organic waste we generate is collected. A significant amount is still put out on the curb by homeowners and is picked up by garbage trucks twice a week and taken to the "expensive" landfill, our sanitary landfill. Some states currently prohibit residents from putting out bags of grass clippings, leaves and shrub prunings. Those states have expensive tipping fees of $120 per ton of garbage. We only pay $20 per ton, so who cares what we throw away? Who cares, indeed! As taxpaying residents, it's cheap, only $8.40 per month. Wait until the fee goes to $50 per month as in other states. That's $600 a year. In the 16 years I've owned a house in this parish, the garbage fee has increased 2 percent annually.

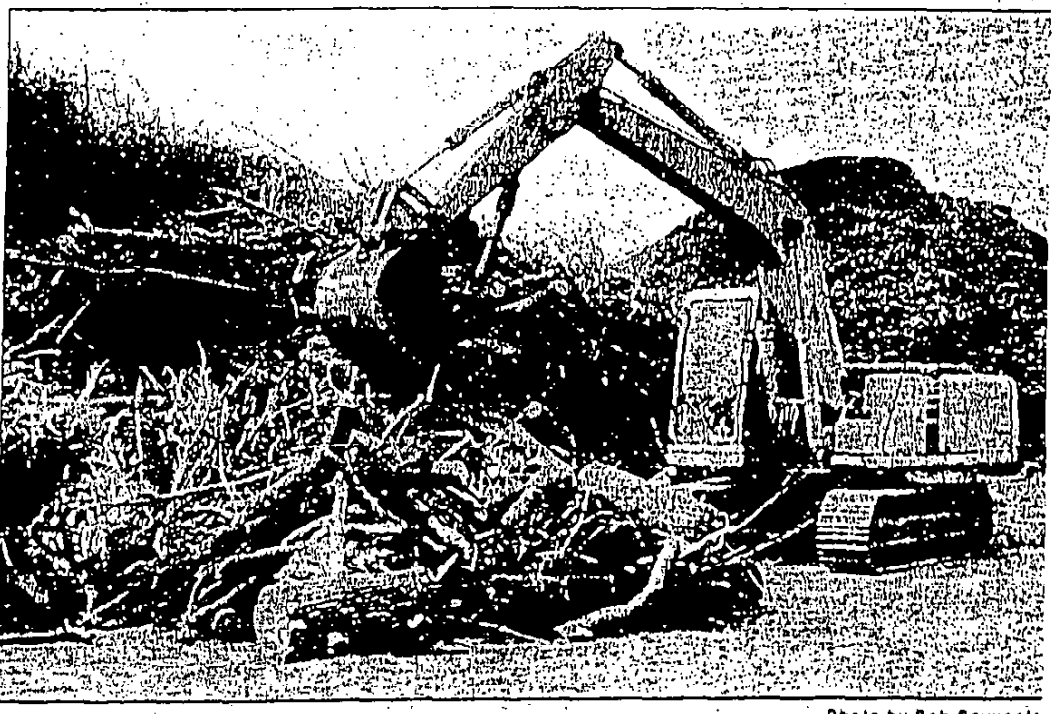


Photo by Bob Souvestr

Collected tree and brush refuse is ready to be ground, and, background, a large mound of chipped wood is ready to be composted at Ronaldson Field.

GROUND WORK

BOB SOUVESTRE

The day is fast coming when "NIMBY" won't be a problem because there will be no more land on which to locate a landfill. Then what? The answer is simple: Your cost to throw away trash will increase dramatically, and laws will be passed prohibiting you from throwing away anything recyclable. This will happen soon enough in our lifetimes; why hurry the situation up by filling the landfill we presently have by not re-using, reducing and recycling? One way is to use locally produced compost generated from locally produced organic waste. Doing so will help divert a tremendous amount of recyclable material from unnecessarily going in our sanitary landfill and will help our local environment.

The BREC Bluebonnet Swam Nature Center will host a festival ce ebrating and educating the publi about snakes, one of our most misur derstood creatures, from 9 a.m. to p.m. Saturday.

Display booths and talks ar planned all day with topics such n overcoming snake phobia, snak identification and habitats, rur snakes, responsible pet snake owner ship, popular myths and misconcep tions about snakes and facts abou snakebite.

The Louisiana Nature Center BREC Baton Rouge Zoo, the Tickfaw State Park, the Jean Lafitte Nationa Historical Park and Preserve an Alligator Bayou will be among th sites represented by speakers o exhibits. There will also be activitie for the kids. A small admission fe will be charged. The center is locate at 10503 North Oak Hills Parkway off Bluebonnet Boulevard, betweei Perkins Road and Highland Road.

Got a question for Bob Souvestre horticulturist with the LSU Agricultural Center? Write Ask Bob, 80 St. Louis St., Baton Rouge, LA 70802

EXHIBIT B

EBR residents' recycling efforts divert 32.8 percent of waste load

By [redacted] DUNNE
Advocate staff writer

East Baton Rouge Parish residents and businesses recycled about a third of what they threw away last year, diverting it from the city-parish landfill.

Additionally, the tonnage buried in the landfill — which is in the northern part of the parish — fell for the first year since 1993.

Susan Hamilton, director of the city-parish Recycling Office, said extra efforts, such as recycling concrete and more composting, helped increase the amount of waste recycled.

In 1997, residents and businesses recycled 139,785 tons of waste, compared to 402,825 tons sent to the parish landfill. Recycling diverted about 25.8 percent of the parish's total waste load.

In 1998, residents and businesses sent only 386,234 tons to the landfill, recycling 188,099 tons. That means about 32.8 percent of the waste was diverted from the landfill to recycling efforts.

The total amount of waste sent to the landfill had steadily been on the rise since 1993, when 293,963 tons of waste was disposed of there. The 1998 results marked the first decline since 1993, but is still 92,000 tons or so more than what was sent to landfill that year.

The parish operates a once-a-week residential recycling program that collects plastics, glass, paper products and some metals. Commercial recycling actually dwarfs the residential program, Hamilton said.

The city-parish goal is to divert 25 percent of what normally goes into the landfill.

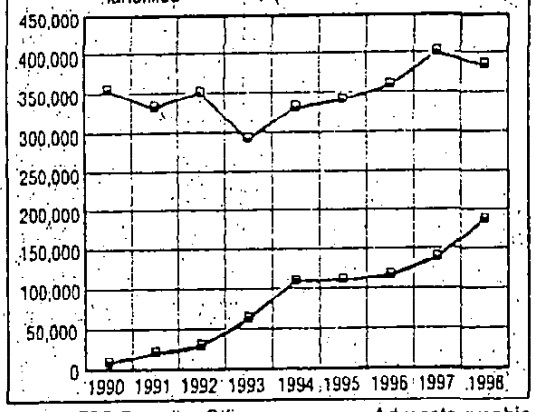
Hamilton said last year was the first time concrete was included in the recycling program. That helped increase the total amount of waste recycled.

Old concrete can be ground up for other road uses or can be used as "rip-rap," or rubble, to combat erosion.

Under state regulations, concrete is counted in determining how much waste is recycled, but it doesn't count under federal guidelines, she said. If the 44,108 tons of concrete recycled in 1998 are removed from the calculations, the parish still meets its 25 percent recycling goal, Hamilton said.

☐ See RECYCLING, Page 2B

Landfilled and recycled waste in East Baton Rouge Parish



Source: EBR Recycling Office — Advocate graphic

Recycling

CONTINUED FROM PAGE 1B

But more needs to be done, she said. This weekend, the Recycling Office kicks off an educational campaign by distributing a handbook on recycling through the upcoming Sunday Advocate.

"We are trying to get people to take a more comprehensive approach to waste reduction — more than just putting the bin out on the curb," she said.

The guide will list businesses that recycle materials and commercial establishments that sell recycled products.

"For example, many people might not think of it, but you can buy a (trickling) hose for your garden that is made of recycled products," Hamilton said.

Several businesses take used oil and antifreeze, and they are listed in the guide, Hamilton said.

There are also tips on how to buy products with minimal packaging.

Composting has also become popular, spurred in part by the distribution of 15,000 low-cost composting bins. The Recycling Office received a $250,000 grant to underwrite the cost of the bins, Hamilton said.

The last of the reduced-priced bins will be sold Nov. 15, she said.

A new disposal site for construction and demolition waste — Ronaldson Field in the Alsen community, which opened in 1998 — has helped reduce what is going into the parish landfill. The operators of the site are recycling much of the construction debris and the wood waste that comes from parish curbside pickup, which will help divert even more from the parish landfill this year, Hamilton said.

Aluminum can recycling, responding to better prices, increased greatly in 1998, Hamilton's statistics show. In 1997, only 1,048 tons of aluminum was recycled. In 1998, the amount jumped to 4,399 tons.

Sewage sludge recycling is also helping the statistics, — though it was down some from 1997 to 1998.

Sludge taken from sewage treatment plants here is being used by PCS Nitrogen Corp. of Geismar to help grow vegetation to cover its gypsum waste piles, which are created when the company makes fertilizer.

EXHIBIT C

Some good news on recycling front

Although Baton Rouge's sewage problems are enormous, there is good news on another waste front.

Recycling by residents and businesses in East Baton Rouge Parish is up, and the tonnage going to the parish landfill is down for the first time since 1993.

Almost one-third of the parish's waste was diverted from the landfill in 1998 by recycling, exceeding the parish goal of 25 percent.

We commend the efforts of all residents and businesses that participated in the recycling program. Those efforts help the environment both by conserving precious natural resources and by keeping waste out of the land.

In 1997, there were 139,785 tons of waste recycled, and 402,825 tons went to the landfill. In 1998, only 386,234 tons went to the landfill, and 188,099 tons were recycled.

Those numbers are headed in the right direction, but they could be better. Until 1998, the total amount of waste sent to the parish landfill had been on a steady increase, and the 1998 amount was still some 92,000 tons more than went to the landfill in 1993.

Susan Hamilton, director of the city-parish recycling office, said commercial recycling of materials such as construction and demolition waste actually surpasses the residential program, which features once-a-week curbside pickup of plastics, glass, paper products and some metals.

While the 1998 recycling number was good, the city-parish recycling office has a new recycling campaign to try to get citizens to take a more comprehensive approach to waste reduction.

Hamilton said the campaign will be initiated this weekend with distribution of a recycling handbook along with your Sunday Advocate.

The guide will list businesses that recycle materials such as used oil and antifreeze and will identify commercial establishments that sell recycled products, Hamilton said.

There are also tips in the publication on how to buy products with minimal packaging.

We commend the effort thus far, and encourage all parish residents to study the recycling publication in the Sunday Advocate and intensify their efforts to help the environment through recycling and the use of recycled products.

The Advocate

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EXHIBIT D

PEOPLE

Shaping up in 2002

■See Page 1H

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Lafayette, East Baton Rouge recycling programs among best in state

By ANGELA SIMONEAUX
Acadiana bureau

Taking out the trash is more complicated than it used to be.

Instead of dumping everything into a bag and tossing it to the curb, many Americans now perform the ritual of sorting their castoffs for recycling.

There aren't too many things considered garbage that can't be recycled or reused. Glass, plastics, paper, cardboard, food, grass, branches, newspapers — nearly everything can be transformed into something usable.

According to an annual survey done by Biocycle Magazine, an industry publication, Americans generated more than 400 million tons of solid waste in 2000, 32 percent of which was recycled.

In Louisiana, 17 percent of the 3.3 million tons generated was recycled, the survey found. The state Department of Environmental Quality receives annual reports from 23 recycling programs in the state.

Two of the state's most effective recycling programs are in Baton Rouge and Lafayette.

Lafayette has the oldest curbside recycling program in Louisiana. It began in the late 1980s, after the city lost a lawsuit filed by neighbors of the city-owned landfill. The lawsuit cost the taxpayers millions of dollars, and the decision was made to close the landfill, said Bette Vidrine, chief of the city's environmental division.

"That was the real impetus to reduce solid waste, because at that point they were going to have to ship it elsewhere, so anything that could be done to reduce the waste stream would reduce costs," Vidrine said.

The program started small, but now Lafayette residents separate their recyclables into three bins: paper,

☐ See RECYCLING, Page 16A

BEST COPY OF THE NEXT ___ __ PAGES

Recycling

CONTINUED FROM PAGE 1A

plastic and glass, and aluminum and steel. Yard waste, including leaves, grass clippings and branches, are left loose at the curb or in open trash cans.

The recyclables are sent to the Recycling Foundation, a local company paid by the city to take the materials, which are sorted and sold. The yard waste goes to the city-owned composting facility, where it is turned into compost that is given away to city residents for use in gardens.

One of the smartest decisions made in the 1980s was to open that composting facility, Vidrine said.

"That takes out the majority of what we remove from the waste stream," she said. "It was a matter of really good planning back at that time for future control of the waste stream; of coming up with some really good solutions that have been the leadership in Louisiana ever since. People come from all over the state and all over the world to see our facility."

Composting, which basically is copying Mother Nature's recycling by turning leaves, grass and branches into organic material to fertilize gardens and mulch trees, can make a big difference in recycling numbers.

It's a big part of the difference between Lafayette's recycling numbers and those of East Baton Rouge.

According to the state Department of Environmental Quality's annual recycling report for 2000, Baton Rouge diverts 28 percent of its waste stream from the landfill. Lafayette diverts 48 percent, the report indicates.

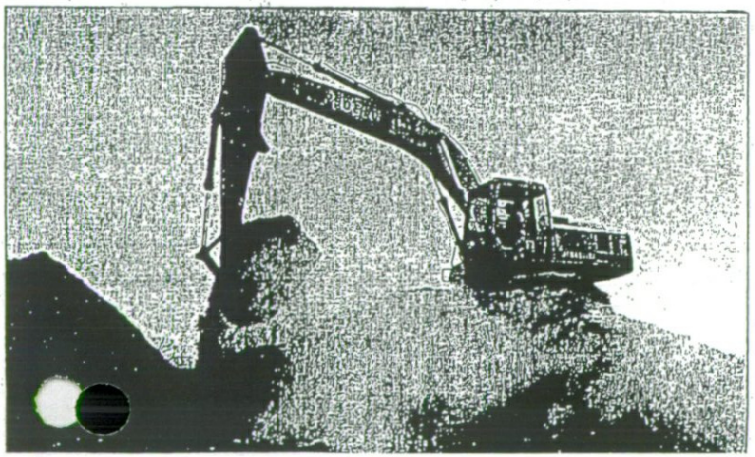
East Baton Rouge Parish has a curbside pickup program for unbundled woody waste. The city's waste hauler, BFI, picks up the branches, trunks and stumps at the curbside and takes them to Natural Resources Recovery Inc., where the wood is made into organic soil mixes and mulches which are sold under the Nature's Best Organics line.

NRRI, which also recycled 32,000 tons of concrete and 1,200 tons of metals in 2000, recycled 27,000 tons of wood waste for the city-parish that year. East Baton Rouge Parish saved money with the contract, said Susan Hamilton, recycling director for East Baton Rouge. It costs about $16 per ton to send the waste to NRRI, compared to $20 per ton to send it to a landfill.

However, the city-parish's grass clippings and leaves still go into the landfill. Hamilton is trying to keep those materials [illegible] with a successful composting program; [illegible] tes that at least 7,000 tons of food waste, grass clippings and leaves are diverted

Advocate staff photo by Bryan Tuck

Joseph Paddio sorts through a mountain of plastic and aluminum at the Recycling Foundation in Lafayette.



Clean Business of the Year Awards 2000

Keep America Beautiful in Baton Rouge Inc. presented its second annual Clean Business of the Year Awards recently, recognizing local businesses and institutions that present an aesthetically appealing image by maintaining their exterior appearance, parking lots and grounds. Nominations were sought from the community for several different categories, and the winners were chosen by a panel of judges selected by KAB.

The winners, who were honored at a reception on May 25, each received a plaque and an outdoor sign to display at their place of business. Those earning honorable mention recognition received a certificate.

Sponsors were the Capital Area Corporate Recycling Council, Franklin Press/Federal Copies, Gerry Lane Enterprises, Union Planters Bank and the Baton Rouge Business Report.

KABIR, a nonprofit organization, is the primary anti-litter organization in the Greater Baton Rouge area. The organization seeks to change attitudes that create litter, to encourage beautification efforts and to promote recycling.

The winners were:

RETAIL: SINGLE STORE
Winner: Yvonne Kelleher Interiors

RETAIL: SHOPPING CENTER
Winner: The Mall at Cortana

SERVICES: OFFICE BUILDINGS
Winner: Anco Industries Inc.
Honorable mention:
Blue Cross and Blue Shield of Louisiana

INDUSTRIAL
Winner:
Natural Resources Recovery Inc.-Ronaldson Field
Honorable mention: Dow Chemical

INSTITUTIONAL: NONPROFITS, CHURCHES
Winner: University Presbyterian Church

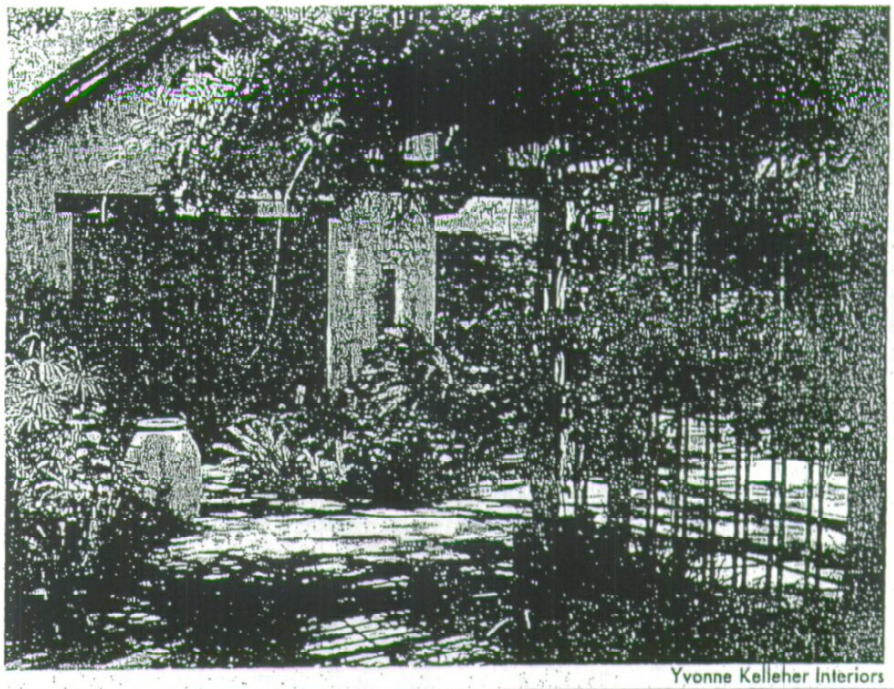
INSTITUTIONAL:
HOSPITALS, MEDICAL/HEALTH CARE
Winner:
Our Lady of the Lake Regional Medical Center
Honorable mention: Summit Hospital

INSTITUTIONAL:
PUBLIC BUILDINGS/FACILITIES
Winner: BREC's Baton Rouge Zoo
Honorable mentions:
BREC Bluebonnet Swamp Nature Center
Friends of the Hilltop Arboretum

INSTITUTIONAL:
SCHOOLS/COLLEGES/UNIVERSITIES, PUBLIC
Winner: LSU Lod Cook Alumni Center
Honorable mentions:
Broadmoor High School
LSU Facility Services

INSTITUTIONAL:
SCHOOLS/COLLEGES/UNIVERSITIES, PRIVATE
Winner: Central Private School

CERTIFICATES OF APPRECIATION
BellSouth Mobility
Bradley-Blewster & Associates
Greater Baton Rouge Food Bank
Hospice of Baton Rouge
Southern University's Archives and Informational Center, Lake Kernan and The Mound



Yvonne Kelleher Interiors

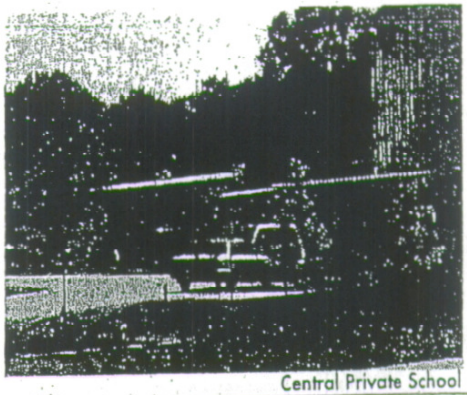
University Presbyterian Church

Anco Industries Inc

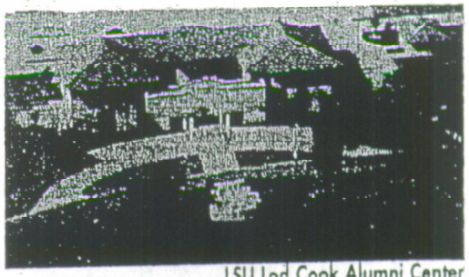
BREC's Baton Rouge Zoo

EXHIBIT F

Natural Resources Recovery Inc.

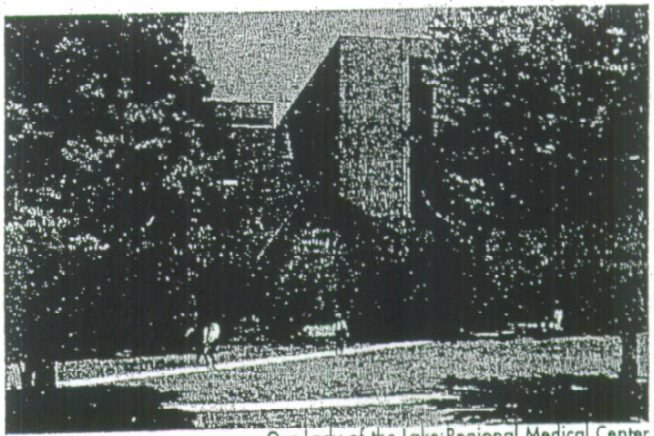


Central Private School

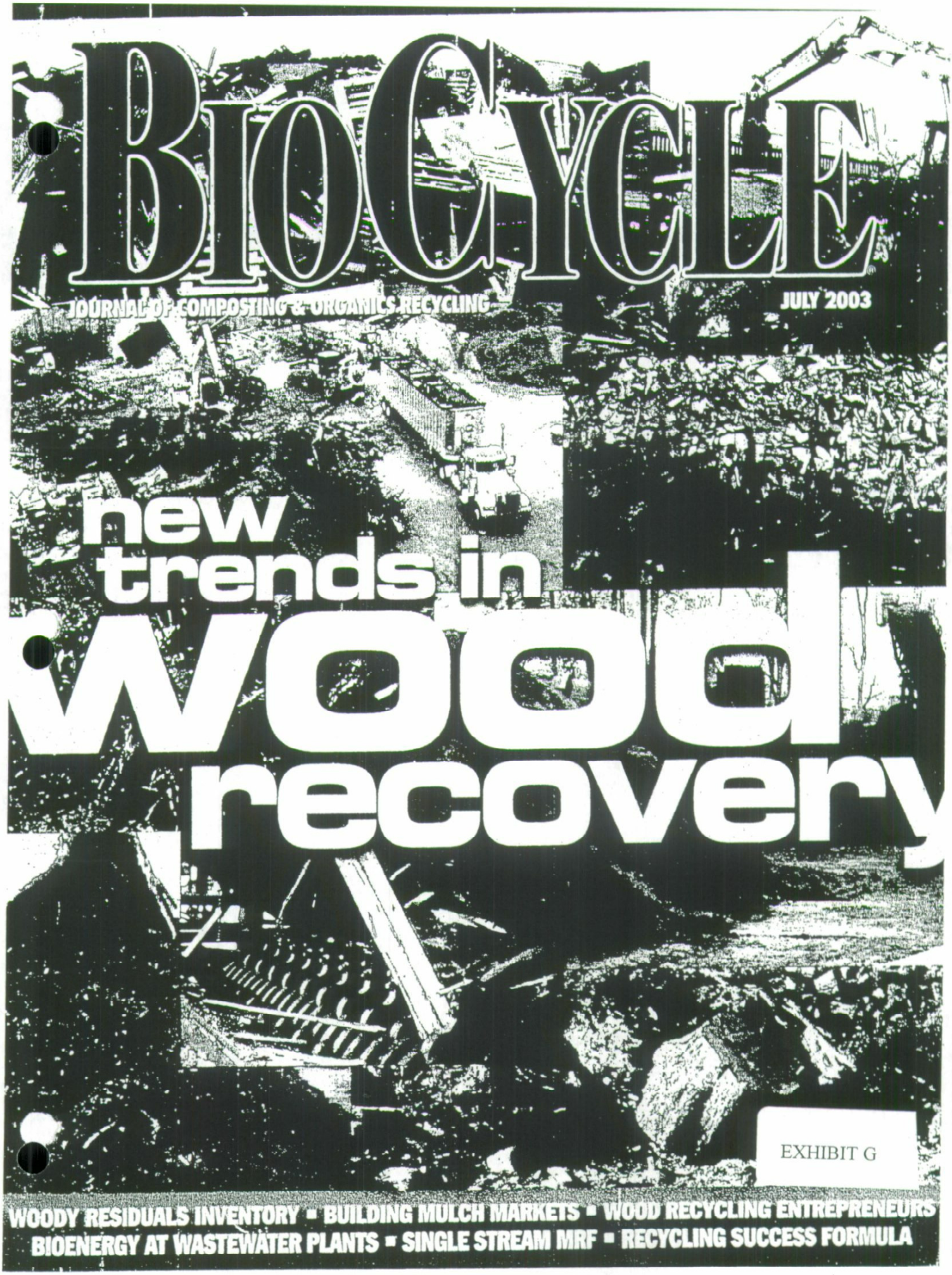


LSU Lod Cook Alumni Center

The Mall at Cortana



Our Lady of the Lake Regional Medical Center


BIOCYCLE
JOURNAL OF COMPOSTING & ORGANICS RECYCLING
JULY 2003
new trends in
wood recovery
EXHIBIT G
WOODY RESIDUALS INVENTORY ▪ BUILDING MULCH MARKETS ▪ WOOD RECYCLING ENTREPRENEURS
BIOENERGY AT WASTEWATER PLANTS ▪ SINGLE STREAM MRF ▪ RECYCLING SUCCESS FORMULA

Adding Value To "Wood Waste"

PALLETS, WOOD AND YARD TRIMMINGS

BUILDING STRONG MARKETS FOR MULCH AND COMPOST PRODUCTS

FOR the entrepreneurs who collect and process wood waste and yard trimmings into useable, environmentally beneficial products, one of the "givens" is an abundant, seemingly nonstop flow of raw material. The real challenge for those aspiring to build sustainable businesses lies at the other end of the pipeline: the need to develop profitable markets for the mulch, compost and other products they turn out. As a result, contractors whose primary business is waste handling have had to become sales and marketing experts by default.

About five years ago, when Louisiana-based Natural Resources Recovery, Inc.(NRRI) began processing yard trimmings for the city of Baton Rouge, there wasn't a huge demand for mulch or compost-based soil mixes. "In south Louisiana, using mulch is still a relatively new thing," says company president Sid Brian, NRRI president. "In Knoxville, Tennessee, where we operate a processing facility for Knox County, they have a different kind of terrain with rolling hills and cooler winters. They have stronger demand for mulch for moisture retention and insulation. But we're in a subtropical climate with an extended growing season, and with our flat terrain, we don't have the erosion problems some other markets do. However, given our heavy soils there seems to be demand for soil amendments."

Initially, the company found that in this market, "people didn't understand the benefits of compost and how to use it," adds Brian. "Our marketing experience taught us we would have a hard time selling straight compost." As a result, NRRI has pursued a successful "value-added" strategy — developing a line of compost-based soil mixes and amendments, marketed under its Nature's Best Organics Label.

Around the country, wood and yard trimming processors tell the same story — to take the volume on the front-end, the mantra on the back end is "markets, markets, markets."

Dan Emerson

Based on feedback from end users, the company is "constantly fine-tuning" its three soil mixes and two varieties of mulch, he adds. Nature's Best Bedbuilder Mix, for example, is designed for direct planting, while its Garden Mix is designed for mixing into existing soil. Another product is a tree mulch comprised of particles up to three inches in size. NRRI sells its products through wholesalers, retail garden centers, landscapers and two retail outlets the firm has opened in Baton Rouge and Lafayette. Sales of the company's products roughly tripled in the first three years, Brian estimates.

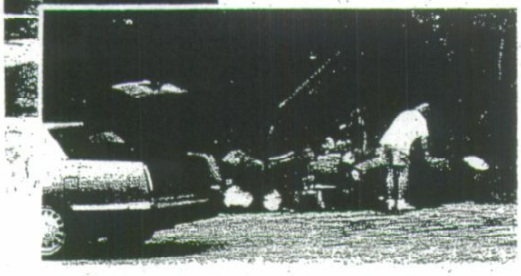
The company, which went into business in 1998 as a construction and demolition landfill operator, branched out into yard trimmings processing when it won the contract with the city of Baton Rouge. Since se-

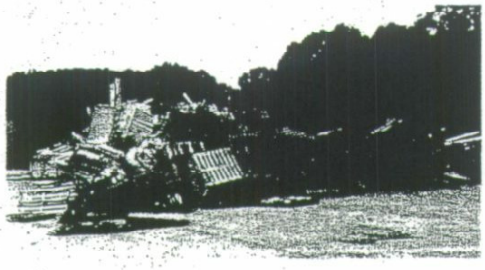
curing a similar contract with Knox County, Tennessee, NRRI now processes about 60,000 tons/year of yard trimmings, operating two sites in each market. Equipment includes a CBI horizontal grinder, and an rin screen that also is used to make the ixes. In addition to landscape products, he company produces a biofuel that its sells to ten plants in the Baton Rouge and Knoxville markets. It also does contract grinding, and has a pallet collection "arm" in Knox County.

GROWING THE MARKET

Brian has been considering whether to expand into the colored mulch business, noting the growing demand for the landscape material. "I've got to be convinced there's enough of a market for the colored product to justify the investment in equipment and materials," he says. The firm has been buying and selling some colored mulch to test the market.

Thus far, the 35-employee company has relied primarily on grassroots marketing to boost awareness and sales of its products. NRRI annually maintains displays and makes presentations at several regional home and garden shows, and also serves as a sponsor of a commercial landscaper group's annual meeting. It also uses billboards and yard signs and donates to schools and homeowners associations. "We've had to educate the market on the benefits of aged and cured, composted mulch and compost-based soil products. It takes a serious marketing effort. We're a manufacturer first; marketing is not our specialty, although we have had some success at selling."





Knox County processing sites receive trimmings brought in by landscapers or ens (middle photo). A lot of pallets (lower o), plywood and other wood waste from boat manufacturers in the area are part of the feedstock flow.

Yard trimmings processing got off to a slow start in Tennessee because two attempts to legislate a disposal ban failed.

As its customer base continues to grow, so will NRRI's marketing efforts, he adds. "This is a volume-driven business. It requires very expensive, specialized equipment. So, once you've got the equipment you've got to try to maximize production. And, if the material doesn't go out the pipeline as fast as it comes in, the pipeline stops up really quick."

The contract with Knox County got underway in January. NRRI operates the yard trimmings collection program and the two processing sites — one in Solway, near

Between the sites it operates in Baton Rouge and Knoxville, NRRI processes about 60,000 tons/year of yard trimmings. A horizontal unit is used for grinding.

The strong demand for mulch especially the red and black dyed varieties is partially due to the popularity of ornamental trees such as red buds and dogwoods.

the city of Oak Ridge, and the second (which opened in April) at Forks of the River Industrial Park in Knoxville. The county also has applied for a permit to begin composting biosolids from area wastewater treatment plants, which would take place at one of the yard trimmings/wood processing sites.

Initially processing about 10,000 tons/year, the Solway facility is ramping up to about double that amount, according to county solid waste manager John Evans. Damage left by two tornados that passed through the area in May greatly increased the volume of material to be processed. The storms knocked down or damaged many "old growth" hickory, pine and oak trees, along with Bradford Pear trees, an ornamental, nonnative tree. The Forks of the River Industrial site processes another 5,000 tons/year. It receives a lot of pallets, plywood and other wood waste from boat manufacturers in the area, says Evans. The contractor produces mulch and wood chips used for boiler fuel by nearby Maryville College, a Kimberly Clark paper plant, and several other cogeneration facilities.

Yard trimmings processing got off to a slow start in Tennessee because two legislative attempts to ban the material from landfills were "beaten back" by waste processing companies and larger cities, Evans explains. "But it made good economic sense to set up these two facilities. They are (cost) competitive with landfilling. And, this is a strong area for mulch, and we suspect it will be very vibrant for compost-based soil mixes." The strong demand for mulch — especially the red and black dyed varieties — is partially due to the popularity of ornamental trees such as red buds and dogwoods. Plus, he adds, "a lot of education is going on right now about mulch, and the public is starting to see the benefits."

Both of the county's sites are well-isolated from residential areas. Forks of the River is nearly surrounded by a rock quarry. Solway is located in a more densely populated part of the county, but its location on top of a ridge, with a lake on the north side, means there are no nearby neighbors. The county developed bike trails and a park-like setting on the 165-acre site, greatly enhancing the public's acceptance. As part of its marketing effort, the county built a striking log house on top of the ridge, to replace the trailer it had been using as a sales office.

Finding takers for the mulch and compost-based soil mixes produced at the two sites has been going well, according to Evans. The University of Tennessee Ag Extension Service has helped with the marketing aimed at retailers and end users. "In Tennessee, nearly everybody owns a pickup, so there's a lot of self-hauling," he says. The high clay content of the soil makes it more suitable for building than growing. To a large extent, growing the county's waste conversion operation "will depend on how quickly the marketplace takes to compost," Evans adds. To further that learning process, he plans to set up a demonstration garden to show the benefits of using the material.

PROCESSING PALLETS

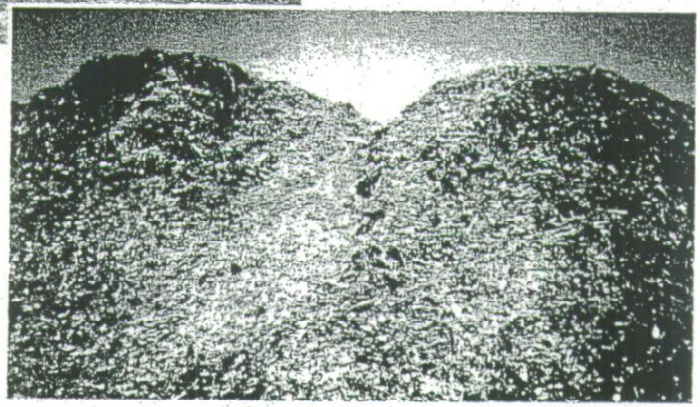
While Pallet Resource of North Carolina began business in manufacturing and repair of the rough-cut wooden platforms that are ubiquitous in factories and warehouses, the Lexington, North Carolina-based firm has developed a profitable side business turning discarded pallets into boiler fuel and mulch. "When we started years ago, there were not as many markets as there are now," says Neal Grimes, company president. "There still are not enough markets to handle all the fiber that could be ground up." Fortunately for the company, because of the seasonal nature of the demand for boiler fuel (winter) and mulch (spring, summer and fall), the two markets

are complementary.

Grimes has been grinding pallets into mulch since 1989, producing one to 1.5-inch chips. The product was not an instant hit in North Carolina, he recalls. "Initially, it was a hard one to break in this part of the country, because of the availability of tree bark and pine needles for use as mulch. Before I developed the higher value markets (selling colored mulch), nobody wanted the stuff."

The firm produces red, brown, cypress and black colored mulch, using a machine manufactured by Wood'n Colors, a company which has since been acquired by Becker Underwood in Ames, Iowa. After the pallets are ground, magnets are used to remove nails and other metals. The wood has a moisture content of about 12 percent. To process material, Pallet Resource uses a Morbark tub grinder and a Schutte-Buffalo horizontal grinder.

In marketing chips to wood burning plants, chip size is a crucial factor, Grimes says. "Some boiler systems may not take the size you're marketing. It can be a deterrent, sometimes." Transportation costs are another major issue, typically ranging between $250 and $350/ truckload, sometimes reaching as high as $400. "They can make or break you," he adds. "If there is too much freight (cost) involved, it becomes just a way to get rid of something."



Most of the material Henry's Wood Farm handles is in the form of tree rounds (top photo) that are processed into chips for playground cover material (bottom photo).

OPERATING IN A QUARANTINE ZONE

In 40 years of doing business, Henry's Wood Farm of Martinez, California has experienced the expected peaks and valleys. However, in recent months, the family-owned, all-women operated firm has faced an unprecedented challenge — in the form of a tidal wave of green waste. A number of recycling operations in northern California's Contra Costa County have been closed down because of a federally-mandated quarantine intended to slow the spread of sudden oak death disease (see "Composting As A Control For Sudden Oak Death Disease," February 2003). The disease, first discovered locally two years ago, has infected an estimated 8,000 trees in the county, according to operations manager Melanie Hasenpusch, who estimates that about half of the 30 wood recycling operations in the county have been closed down. With fewer recyclers to handle the waste stream, Henry's seven-acre operation has quadrupled its feedstock in recent months, requiring a shift from renting a grinder once a year to purchasing a Vermeer tub grinder for full-time use. Another complicating factor is that the quarantine requires wood recyclers to retain material on-site for at least 12 months before moving it on.

Most of the material Henry's handles is in the form of tree rounds and trimmings from developers and landscapers, which brings up another reason for the increased flow: "Even though the economy is down and we're officially still in a recession, the housing industry has been booming — which means a lot of land clearing activity," Hasenpusch explains. "With fewer and fewer places to take rounds and chips, we're becoming inundated. This has always been a relatively small, community-based business, but we're expanding quickly."

Hasenpusch estimates that about 80 percent of Henry's production is purchased by landscapers, with 20 percent being used by homeowners. Material is trucked to buyers as far as 60 miles away, in the San Jose area. After 40 years in operation, Henry's is well known in the surrounding area. Still, the firm plans to boost its marketing efforts, she notes, using yellow-page advertising and the Internet. "We're a little be-

Recycled water from the Regional Sanitary District is used to keep windrows moist, while adding nutrients to the piles. That water supply is also used for fire control and to water all gardens on the site.

hind the times; we just started building our web site."

Henry's has an edge over nearby recycling facilities run by Acme Fill and BFI, both of which charge $13.50/yard to dump material. Henry's charge is $5/yard, with a $100 cap. The 7-acre facility is currently processing more than 3,000 yards/month of wood waste. While over the permitted limit, the county has been giving recyclers a de facto exemption because of the quarantine situation.

Wood rounds are processed into chips for playground cover material or cut for firewood, while other green waste is made into soil conditioner. "Our green waste is left alone to 'rest' for a period of at least one year before it is screened and separated," explains Hasenpusch. "Separated wood chips are rescreened to soften and turn them into a small decorative chip, while the leaves and green waste are left to compost for another year." Henry's uses recycled water from the Central Contra Costa Sanitary District to keep windrows moist. The water also adds nutrients to the piles, which cuts down the decomposition time by 15 percent, she adds. "It's a win-win situation, because we don't have to use drinking water, which is more expensive, to add moisture. In addition, we use the recycled water for fire control and to water all the gardens on our site." Henry's Wood Farm was one of the first customers connected to the sanitary district's recycled water system.

Wood chips processed using a quarter-inch screen are mixed with compost and soil conditioner for use in the area's clay and adobe soils, which can be difficult to work with on their own. The product is valued by developers and landscapers because "when sod is laid on top of the product, the roots from the sod will wrap around pieces of chip and take it down into the clay and adobe — which is pretty hard ground," notes Hasenpusch. "Then it deteriorates, causing aeration and providing nutrients to the newly established roots."

To augment its regular three-quarter-inch to one inch screens when producing chips, Henry's has been experimenting with a quarter-inch trommel made by Powerscreen. Results have been good, according to Hasenpusch. The smaller chips are in demand for use in small rose gardens and Japanese gardens. "The smaller chips look better; they darken more quickly, to a uniform golden color," she says. Plus, the "fines" that adhere to the small chips aid in controlling weeds, and quickly decompose into compost-like material. Chipped and screened material is marketed to schools, playground structure companies, landscapers and various residential users.

Henry's Wood Farm is planning to switch to a horizontal grinder because of the safety hazard posed by the tub grinder's tendency to throw material. Even though the facility's grinding operation has been operating at full-tilt, noise and odor have not been problems, since the site is well-isolated from residential neighbors, situated between a landfill and an oil refinery. In exchange for implementing a state-mandated odor management plan, the facility was allowed to double the amount of finished product it has on hand — from 500 to 1,000 yards of each type. Under the plan, the operators are required to prevent water puddling, frequently turn stockpiles and take daily temperature readings.

With green waste material accumulating at the fastest rate ever, preventing compost piles from heating up becomes even more of a challenge. Constant turning is important, along with striving to keep individual piles from exceeding 1,000 yards in size, Hasenpusch says. Fortunately, the blackbirds that gather on top of the compost piles serve as an indicator of rising temperatures. "Anytime they gather on a pile or section, that means heat from a hot spot is driving the bugs up," she notes. "They like the bugs and heat. So if we spot them gathering we know we have a problem." ■

The State of Alternatives to ***MSW*** Landfilling

C&D, Composting, Reuse, Waste Minimization and Recycling

Presented by:
Sid Brian

NATURAL RESOURCES RECOVERY, INC.

2003 Louisiana DEQ Conference

March 18, 2003

EXHIBIT H


NATURAL RESOURCES RECOVERY, INC.
RONALDSON Field
NATURE'S SM Best organics
NATURAL RESOURCES RECOVERY
of TN, LLC
RECYCLED LOCALLY

- Permitted LDEQ Type III C&D Landfill, Resource Recovery and Separation Facility
  - Recovering for recycling
    - Metals
    - Tires
  - Recycling
    - Concrete
    - Woodwaste
      - Soil Mixes
      - Mulches
      - Bio-fuel

RONALDSON Field

Acceptable Materials

- Construction Debris
- Demolition Debris
- Remodeling Debris
- Roofing Material
- Wood Waste
- Yard Waste
- Concrete
- Dirt
- Metals

Unacceptable Materials

- Hazardous
- Industrial Solid Waste
- Household Garbage
- Tires
- Liquid
- Infectious
- Friable Asbestos
- Putrescible
- White Goods

RONALDSON Field

Inbound Materials

- Source separated:
  - Concrete
  - Clean Greenwaste
  - Mixed Woodwaste
  - Landfill working face
- Mechanically separated

RONALDSON
Field

Working Face of Ronaldson Field C&D Landfill

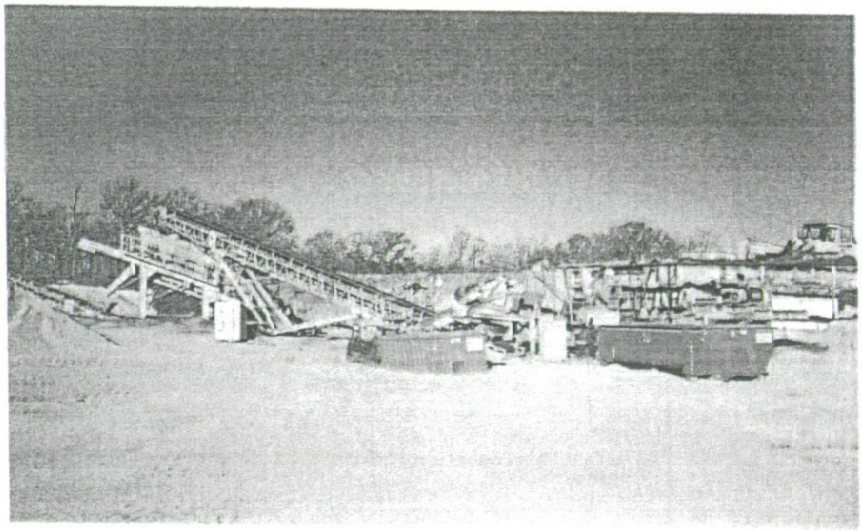
RONALDSON Field

RESULTS

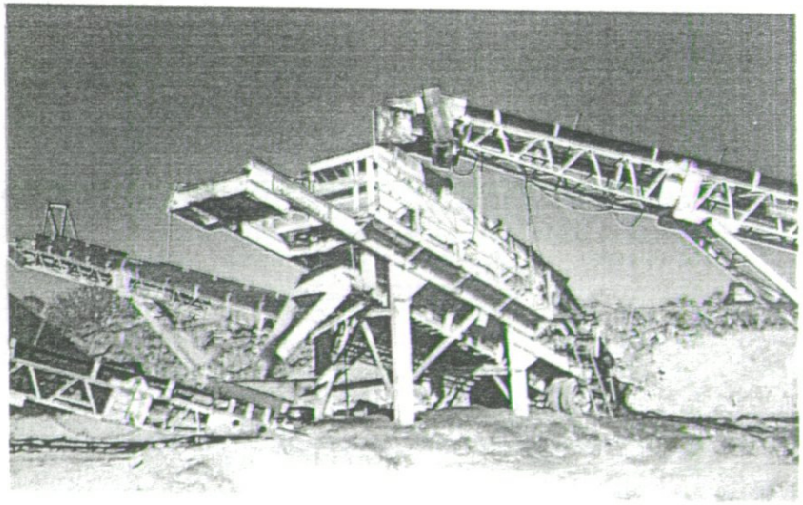
- For every ton of inbound material, NRRI sends outbound approximately 0.5-0.6 tons of recycled material.
  - Outbound recycled materials:

Tires	Soil Mixes
Metals	Mulches
Concrete	Bio-fuel

- Through separation, recovery and recycling, we achieve approximately a 10:1 compaction on working face.



Concrete Recycling



Raw Concrete to a
Finished Product

Concrete Recycling

Concrete Recycling

- Pros
  - Beneficial reuse
  - Less expensive substitute for limestone
  - Strong demand for good product
  - Inventory (no leachate, odor, air emissions, shrinkage, decomposition)
  - Does not compact in Landfill, reclaim valuable airspace
- Cons
  - Capital intensive
  - Specialized equipment
  - Volumes needed to justify equipment
  - Material not regulated

Woodwaste Recovery and Recycling

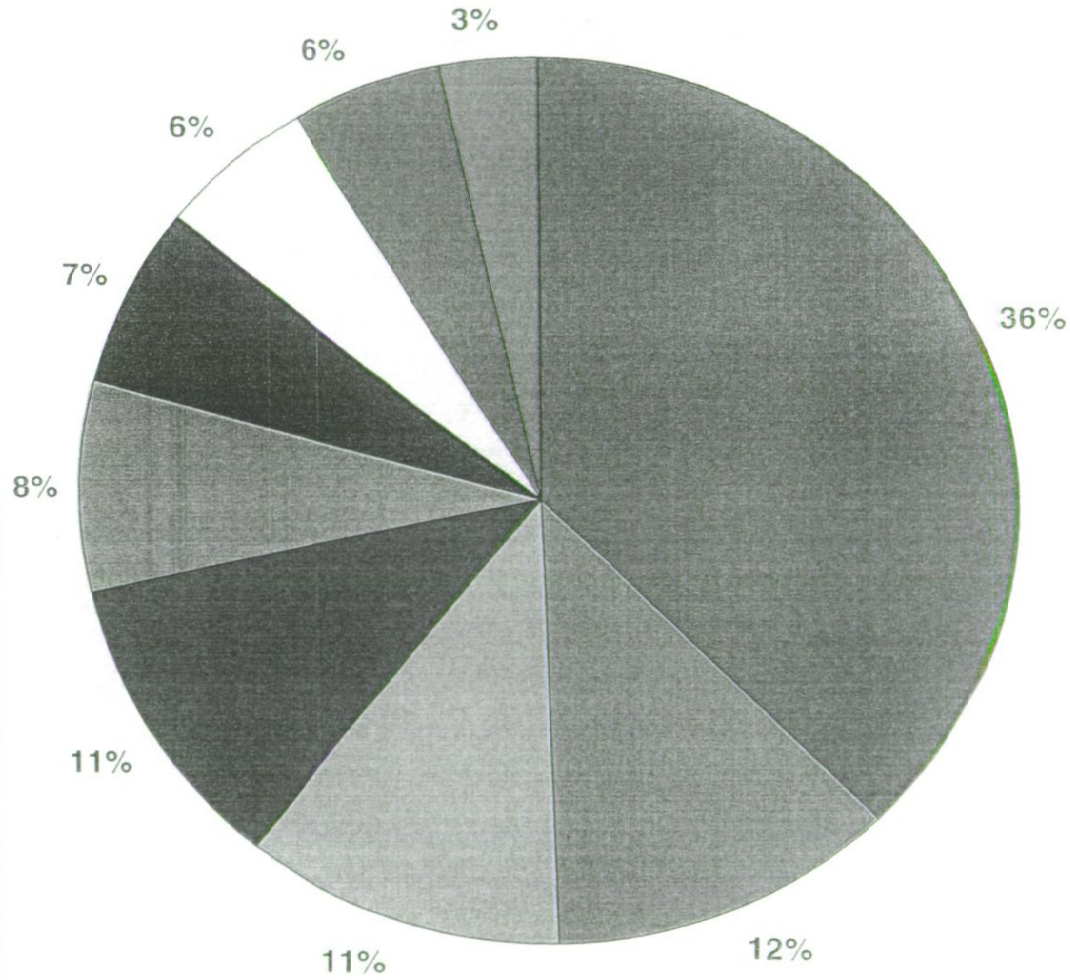
- **Greatest Opportunity for Impact**
  - Large volumes
  - Doesn't compact
  - Beneficial Reuse
  - Marketable/Value added products
  - Demand for recycled material
- **Obstacles**
  - Capital intensive
  - Specialized heavy equipment
  - Volumes needed to justify equipment
  - Marketing
  - Regulated, but not enforced
- **Added Benefits from Recovery**
  - Extends landfill life
  - Reduces landfill gases
  - Minimizes leachate produced

Municipal Waste Stream- National Averages

2000 Waste Generation – 232 Million Tons

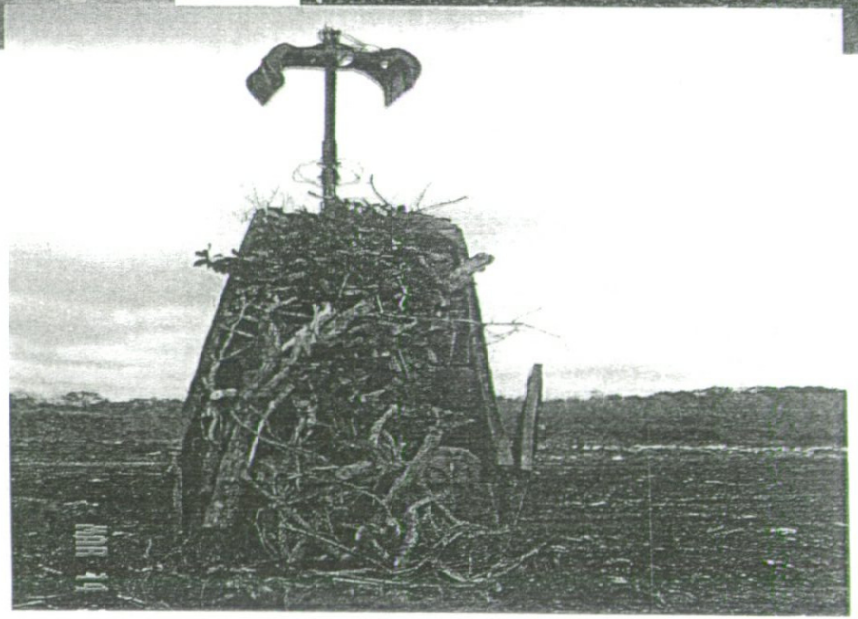
(before recycling)

Source: EPA, http://www.epa.gov/epaoswer/non-hw/muncpl/facts.htm

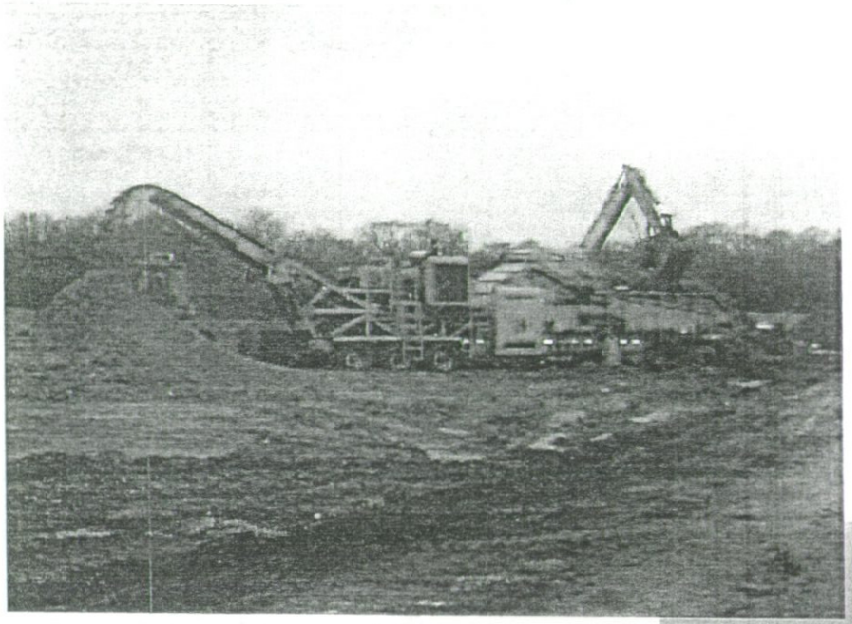


Woodwaste Recycling

- Primary Materials Recycled
  - Uses
  - Greenwaste/Yard Trimmings
    - Composted-Organic Soil Mixes
    - Mulches
    - Bio-fuel
  - Dry wood/Pallet/Lumber
    - Mulches
    - Bio-fuel
    - Animal Bedding



Greenwaste-From curb, delivered to Ronaldson Field and stockpiled for processing.

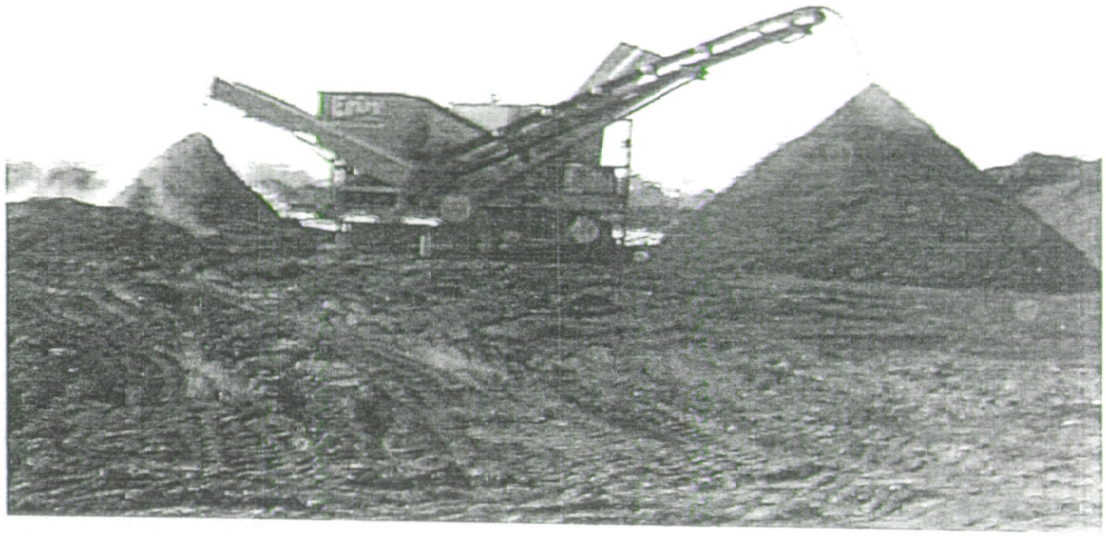


Initial Grinding

NATURE'S Best organics

Stumps/Trunks to be ground for bio-fuel

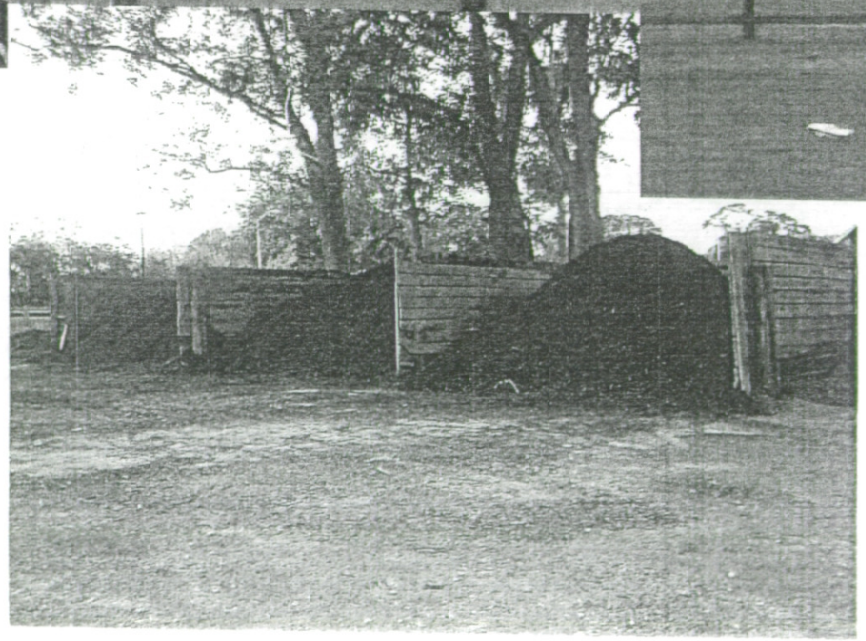
Ground material placed in windrows for composting, material "turned" periodically for aeration.



Screening/Mixing Compost into a Premium Landscape Mix

Retail Distribution

Baton Rouge



Contracted Retail
Distribution Outlets
(Lafayette-2)

NATURAL RESOURCES RECOVERY, INC.

Woodwaste Recycling
Contractual Alternatives

- **Public/Private Partnerships**
  - NRRI/EBRP
- **Operating Agreements**
  - NRRT/Knox County, TN
- **Processing/Grinding Contracts**
  - Landfills, Transfer Stations, Collection Centers
  - Custom Grind Jobs
    - Ga. Pacific, Netterville Lumber, etc.
  - Land Clearing, Storm Clean-up

NATURAL RESOURCES RECOVERY, INC.

Woodwaste Recycling
Future

- All about volumes-capital intensive
- Stricter enforcement of existing regulations
- Burn Bans
- Moratoriums on landfilling greenwaste
  - Currently in 24 states
- Improve state programs to increase recycled organic product markets

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July 29, 1996

VIA HAND DELIVERED

Department of Environmental Quality
Office of Solid & Hazardous Waste
Post Office Box 82178
Baton Rouge, Louisiana 70884-2178

Attention: Mike Strong

Dear Mr. Strong:

Enclosed is the response to the public comments submitted by our client, Natural Resources Recovery, Inc.

Please contact the undersigned if you need additional comments or information.

Very truly yours,

BREAZEALE, SACHSE & WILSON, L.L.P.

John W. Barton, Jr.

JWBjr/jy
Attachments

cc: Office of Water Resources
(with enclosures)

EXHIBIT I

COMMENTS ON THE APPLICATION FOR WATER DISCHARGE PERMIT

PERMIT APPLICATION NO. WP 5372

BY NATURAL RESOURCES RECOVERY, INC.

JULY 29TH, 1996

Submitted By:

Chenevert-Songy-Rodi-Soderberg
An Engineering/Architectural Corporation
10725 Perkins Road, Suite 200
Baton Rouge, Louisiana 70810

By: Ronald J. Rodi

and

Breazeale, Sachse & Wilson, L.L.P.
One American Place, 23rd Floor
Baton Rouge, Louisiana 70821

By: John W. Barton, Jr.
Andrew J. Harrison

COMMENTS ON THE APPLICATION TO OPERATE A TYPE III CONSTRUCTION/DEMOLITION - DEBRIS LANDFILL RECOVERY FACILITY (RONALDSON FIELD, EAST BATON ROUGE PARISH)

SITE ID NO. D-033-8024

PERMIT APPLICATION NO. 509

BY NATURAL RESOURCES RECOVERY, INC.

Natural Resources Recovery, Inc. ("NRRI"), through its undersigned representatives, submits the following comments to the Louisiana Department of Environmental Quality ("DEQ") in support of its permit applications and as a response to comments submitted in opposition.[1] The following comments primarily address NRRI's Type III Solid Waste Construction & Demolition ("Topography C&D") Permit Application for the Ronaldson Field Topography C&D Landfill, but are also applicable to and submitted in support of and in response to comments on NRRI's interrelated Wastewater Discharge Permit Application.

NRRI's comments essentially serve four purposes. First, NRRI clarifies for the public the legal standards applicable to permitting of a Topography C&D facility. Second, NRRI explains how its prior efforts meet all constitutional, statutory and regulatory requirements of obtaining a permit for siting and operating a Topography C&D facility. Third, NRRI reviews some pertinent facts regarding the permit, the permitting process and operation of the facility to further clarify relevant factors which have been misunderstood. In this regard, NRRI addresses the few specific factual and technical comments submitted. Fourth, NRRI's discussion responds to specific public comments on the Topography C&D Permit Application and, in part, to comments on its Wastewater Permit Application. These purposes are attained throughout this document though not necessarily in this same order.

In response to these comments and in support of its permit, NRRI will first review for the public LDEQ's duties under the "IT" decision. Then it will review the facts pertinent to each of the five "IT" questions. Finally, it will provide specific responses to the few specific factual or technical public comments.

---

[1] Comments have been submitted by the Louisiana Environmental Action Network ("LEAN") and the Steering Committee opposing NRRI's Water Discharge Permit Application (WP No. 5372) (hereinafter the "LEAN" comments) and other members of the public. Though LEAN asserted that "DEQ cannot apply responses of one application to another. . .", DEQ is entitled to review all information available to it and is not relegated to conducting decision making in a vacuum.

I. "IT" Questions

The duties of the secretary of LDEQ were set forth in Save Ourselves, Inc. v. Louisiana Envtl. Control Comm'n, 452 So.2d 1152, 1157 (La. 1984) (the "IT" decision). To determine whether a proposed project fully minimizes adverse environmental effects, LDEQ must consider whether alternate projects, alternate sites or mitigative measures would offer more protection for the environment than the project as proposed without unduly curtailing non-environmental benefits. Id.

In Blackett v. Louisiana Department of Environmental Quality, 506 So.2d 749, 754 (La App. 1st Cir. 1987), the First Circuit summarized LDEQ's considerations into five categories:

> First, have the potential and real adverse environmental effects of the proposed facility been avoided to the maximum extent possible? Second, does a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of the proposed facility demonstrate that the latter outweighs the former? Third, are there alternative projects which would offer more protection to the environment than the proposed facility without unduly curtailing non-environmental benefits? Fourth are there alternative sites which would offer more protection to the environment than the proposed facility site without unduly curtailing non- environmental benefits? Fifth, are there mitigating measures which would offer more protection to the environment than the facility as proposed without unduly curtailing non-environmental benefits?

In In the Matter of Rubicon, Inc., 670 So.2d 475 (La. App. 1st Cir. 1996), the First Circuit Court of Appeals gave insight to the meaning of and the application of these mandates. It stated that to be in conformity with the above mandates, LDEQ's decision on a permit should contain:

1) a general recitation of the facts as presented by all sides;
2) a basic finding of facts as supported by the record;
3) a response to all reasonable public comments;
4) a conclusion or conclusions on all issues raised which rationally support the order issued; and
5) any and all other matters which rationally support the DEQ's decision.

Id. at 428. Further, any written finding of facts and reasons for a decision must satisfy the questions set forth in Blackett. Id.

First, NRRI submits that LDEQ possesses all information necessary to make a decision to grant the necessary permits sought by NRRI. Second, NRRI further states that all information necessary to conduct the above-described analysis is available in NRRI's submissions. This submission merely provides additional information on NRRI's efforts prior to filing its permit application and provides additional information in response to specific comments. Lastly, NRRI states that an analysis of the information clearly shows that this permit application meets the permittee's obligations under the IT analysis.

A. Have the potential and real adverse environmental effects of the proposed facility been avoided to the maximum extent possible?

1. Yes. NRRI's investigation has taken into account potential and real adverse environmental effects of the proposed facility and its proposal avoids, to the maximum extent possible, both potential and real adverse environmental effects. The proposed Ronaldson Field Landfill will be located in an industrially classified area of East Baton Rouge Parish in close proximity to the new City-Parish Landfill (the "North Landfill"). The proposed site is suitable for siting of a landfill and all steps have been taken to avoid any adverse effects on the natural environment. Further, significant efforts will be employed to ensure that any effect on the human environment is minimized to the maximum extent possible.

2. Discussion. (Summarized on Appendix "A")

The facts show that the adverse effects upon the natural environment, upon the human environment and upon land use have been avoided to the maximum extent possible. The lack of adverse impact upon the natural environment may be seen by examining the site's topography, geology, vegetation, wetlands, and wildlife habitat, and the facility's impact thereon. The lack of adverse impact upon the human environment and land use may be seen by examining the site and its neighborhood in terms of residential, commercial, industrial, institutional, recreational and undeveloped land uses, and the facility's impact thereon.

a) Natural Environment

i) Topography

For the natural environment, the topography is well suited for a Type III, Topography C&D facility. The natural contours of the site are fairly flat, but was well drained land used as a pasture. In the center of the site is a borrow pit dug to approximately 40 feet deep, which is below the deepest depth for the landfill cells. On the northern edge of this pit, however, is a shelf which was dug to only about 20 feet below the natural land surface. This allows avoiding adverse impacts in several ways.

First, after the pit is drained, the bottom of the borrow pit will be sealed with a 5-foot layer of re-compacted clay that will come from the shelf area. This will allow the commencement of operations at a location below the grade of the land which will minimize any noise from the operations. As explained below, landscaping of the buffer zone is planned to help reduce noise. By starting operations below grade, the vegetation planted in the buffer will have more time to grow.

Second, the existing pit is deeper than the bottom of the proposed landfill. As stated in the preceding paragraph prior to operation to ensure adverse impact to the nearest aquifer, the existing pit will be filled with 5 feet of re-compacted clay. Thus, the bottom will be well above the nearest aquifer.

Third, the wetlands on the site have been determined by the U.S. Army Corps of Engineers ("Corps") and no landfill or other operations will take place in the wetlands area.

Fourth, the site is not in the 100-year floodplain. This includes the wetlands area and unnamed stream crossing the site from west to east. By way of comparison, LDEQ's records show that portions of the City/Parish's North Landfill (a Type I & II landfill) were in the 100-year floodplain before filling occurred.

Another way the topography shows that adverse impacts have been minimized is that the site's northern border is the Rafe Mayer Road. The facility at all points meets LDEQ's 50-foot buffer requirement, and frequently exceeds it. However, along Rafe Mayer Road across from the residential area, the buffer zone will be at least 250 feet to the edge of the street. Thus, the actual distance to residences is 400 + feet, including the width of Rafe Mayer Road, its right-of-ways, and pipeline right-of-ways.

LDEQ should note that NRRI may not have necessarily been required to determine the buffer zone's width from the edge of Rafe Mayer Road under the Louisiana Solid Waste Regulations. The DEQ Regulations require a 50-foot buffer from the edge of the landfill to the property's boundary with the adjoining land. However, when land is dedicated for use as a public road, frequently the property's boundary is considered as the middle of the road as the road is considered to be a public servitude. In Matter of Woodrow Wilson Construction Co., 563 So.2d 385, 391 (La. App. 1st Cir. 1990), the court ruled that LDEQ's regulations are to be strictly construed against LEDQ and in favor of the landowner. NRRI, thus, could have claimed the right to measure the 50-foot buffer from the middle of Rafe Mayer Road. NRRI did not do so. Instead, it has greatly increased the buffer zones and these will be planted with vegetation.

An additional way the topography minimizes adverse impacts is that the site is transected by two (2) natural gas pipelines. One is north of Phase 3 of the landfill, and between it and the 250-foot buffer in the northwest corner and Rafe Mayer Road. Thus, the distance between the landfill and any residential area in Alsen is actually 250 feet, plus the width of Rafe Mayer Road and its rights-of-way, plus the width of the pipeline servitude. The other pipeline runs between the Phase 1 & 2 area and the Phase 3 area. As a result, the effective buffer between the landfill and the area of the church's parking lot to the west will be over 1000 feet until operations begin in the Phase 3 area. By that time, the vegetation planted in the buffer zone will have had several years to grow, and thereby screen the landfill so that it can only be partial, from neighboring land and any noise from the site is reduced.

Currently the site is used for cattle grazing. Although this site has not been laboratory tested, runoff across cattle grazing lands typically produce non-point sources of pollution of higher than normal levels of Biochemical Oxygen Demand (BOD), and Fecal Coliform (FC) from transport of manure into adjacent waterways. This runoff will ultimately be eliminated by the project.

Finally, an additional way that the project will avoid adverse impacts is by the elimination of the pig pens in the south east corner of the site in the vicinity of the St. Irma Lee subdivision. The pig pens have been a source of odors and concerns that they may create health hazards. The pig pens will be immediately eliminated.

ii) Vegetation

Planning for the facility has also considered vegetation as part of the means used to avoid or minimize adverse impacts. First, additional vegetation will be planted in the buffer zone. This will reduce noise from the facility.

Second, vegetation is sparse on the site's areas designated for land filling. As those areas are filled, they will be capped, covered with soil and seeded. The existing pit and bare areas will thus become grassy areas.

A third way vegetation was considered to avoid or minimize adverse impacts is in the wetlands area that crosses the site from west to east. Although this site was not in industrial use, NRRI had a wetlands delineation performed. None of the wetlands will be disturbed.

iii. Geology

The site's geology also shows that adverse impacts are avoided. A more detailed discussion of the geotechnical investigation is in the application, and is further elaborated upon below. However, that investigation found that the natural in-situ clay for this Type III facility were more than 10 times more impermeable than the standards set by EPA for re-compacted clay liners for hazardous waste landfills.

iv. Faults

Next, although the LSWR do not contain seismic criteria for Type III landfills, there are no faults within the project site or in its vicinity.

v. Aquifers

Further, as shown in the permit application, the site is in a Low Recharge Potential area for aquifers, not within 1000 feet of an aquifer recharge area, and as noted above, the landfill is at least 5 feet above the upper most aquifer under the site (and 5 feet of the on-site clay which already exceeds EPA's hazardous waste landfill liner standards will be re-compacted and used to seal the bottom of the existing pit).

vi. Subsidence

The site geology is also well suited since there are no known areas of ground subsidence.

vii. Wildlife Habitat

Finally, any adverse impact to the natural environment in terms of an impact on wildlife habitat has been avoided. The site areas which will be used for operations and land filling have previously been used for the borrow pit, cattle grazing and the pig pens. Thee is no wildlife habitat in these areas. The remaining site areas, consisting of wetlands and an upland area in which there are perimeter trees, will not be used in connection with the operations or for land filling. Any impact upon those areas as wildlife habitat has already occurred due to prior activities on site.

viii. Wetlands

These factors show that all adverse impacts upon the natural environment have been avoided or minimized to the maximum extent possible. The same is true as to impact upon the human environment and land use.

b) Human Environment and Land Use

The Type III Topography C&D facility will have little to no impact upon residential land use. The Site is completely within Industrial Area No. #4 as defined in the City/Parish's Plan of Government. Residential land use is illegal in Industrial Areas. The site is also zoned M-2 (Heavy Industrial), and has been for nearly 40 years. Under the City/Parish's zoning ordinances, residential land use is illegal in M-2 areas.

i. Residential

The only existing buildings on site are the pig pens in the southeast corner. This is in the vicinity of the St. Irma Lee Subdivision and the pig pens have been the subject of numerous complaints to various public agencies due to the smell. There is, also, no buffer between the pig pens and that subdivision. NRRI will terminate the lease with the operator of the pig pens, have them torn down, and will construct the buffer area shown in the permit application including landscaping and vegetating that area. Because that area is anticipated to be Phase 4 of the Topography C&D facility, and the anticipated life of the facility is 15 to 20 years, it can be expected that a number of years will pass before there are operations in the Phase 4 area, which will allow the vegetation to take hold in that buffer area.

The northern border for the site is Rafe Mayer Road. The facility's entrance is about 0.8 miles west of Highway 19. Highway 19 is a major traffic artery in the area, leading to the Cites of Baker and Zachary. As discussed in Section I.D. below, on alternative sites considered, Highway 19 was identified as major transport route for solid waste being taken to disposal sites in various studies for the Plan, attached hereto as Exhibit "A" (hereinafter, the "1987 Report"), developed for the City/Parish which plan forms a component of EBR's Horizon Plan. The wastewater, Solid Waste, and Drainage Element, Comprehensive Lane Use and Development Plan of the City/Parish's Horizon Plan is attached hereto as Exhibit "B". Recently, the City/Parish upgraded Rafe Mayer Road to its highest standards. It is currently used for heavy truck traffic traveling between U.S. Highway 61 and Highway 19.

The Ronaldson Field C&D facility should have little to no impact on the road improvements. First, there are no residences along the 0.8 miles of Rafe Mayer Road between the facility entrance and Highway 19. The various studies for the City/Parish, discussed in detail in connection with the alternative sites analysis below, emphasized the importance of having short, direct haul routes along major traffic arteries between the areas of waste generation and the disposal site. Ronaldson Field is between North Landfill and major waste generation centers for EBR Parish. The most direct access to the site is from Highway 19. Thus, nearly all traffic will not pass any residences or entrances to residential areas.

There, further, should be only minimal impact upon residences along Rafe Mayer Road west of the facility's entrance road. Ronaldson Field fronts on the Road for about 2700 feet. From the northeast corner to the entrance is about 1800 feet. As noted, there are no residences or residential areas on the north side of the Road in that area. West of the entrance for the remaining approximately 900 feet, there are only 5 residences on the Road. These are across the Road from the facility's buffer which, as noted, is well in excess of 250 feet wide at all points. There are three streets leading to residences on the north side of the Road. However, the facility's entrance is about 700 feet from the nearest of those streets.

To the east of the site there are no residences. Several years ago this portion of Industrial Area No. 4 was annexed by the City of Baker for industrial development.

To the south, the site is bordered by St. Irma Lee and the remainder of Industrial Area No. 4. The elimination of the pig pens which now border St. Irma Lee was described above. The buffer between Phase 4 and that subdivision will be at least 200 feet. In addition, the areas of the largest portions of the C&D landfill (Phase 1 & 2), and the other operations on the site, will be on the other side of the wetlands, areas of undisturbed trees and unnamed creek. Thus, most of the facility operations will be separated from that subdivision by the more than 600 foot width of that area, in addition to the facility's buffer. The remaining property to the south is industrial.

To the west is industrial and that parking lot of a church. The facility's buffer in its northwest corner is 250 wide. South of this is a gas pipeline servitude. Thus, the nearest area of operation on site, Phase 3, never borders the church property. The site will be surrounded by a security fence. And, as noted, the buffer zone will be landscaped and planted with vegetation, which will further reduce impacts such as noise and being able to see the facility.

The permit application also contains operational controls which will reduce impacts on residences. There will be no operations on Sundays. Thus, there will be no noise or traffic to interfere with the church. The facility's operating hours will be from 7:00 a.m. to 6:00 p.m. Thus, there will be no noise or traffic at night. And, the facility will have to operate in accordance with all applicable federal, state and local laws and regulations.

There have been some concerns raised about dust from traffic or the facility's operations. Since the entrance is on Rafe Mayer Road, which was recently upgraded by the City/Parish, there is no place where dust should be generated along there. In accordance with LDEQ's regulations and industry practice for C&D landfills, a dust suppression plan will be included in the facility's operating plans. Still, given the nature of the materials to be recovered or land filled on site, there will be little opportunity for generating dust, and the extensive, landscaped buffer zones and other areas which will not be used will significantly reduce any dust from the site.

There have also been concerns raised about odors from the site. Wood waste and C&D material do not generate odors. In fact, one of the reasons NRRI chose not to seek to construct a composting facility under this application is that when researching the matter it discovered that composting facilities do generate odors which may be offensive to nearby residents.

A review of the facts shows that adverse impacts on the human environment and residential land use are minimal, and have been avoided or minimized to the maximum extent possible. There may be a small increase in traffic along Rafe Mayer Road west of the entrance. There are, however, few residences which would be affected by that, and it is entirely likely that any increase in traffic along that route will be both insignificant and not noticeable. Visual impacts are avoided or minimized by the extensive buffer zones, landscaping, vegetation planting, undeveloped areas and the fact that land filling operations will commence in the existing borrow pit and so initially be below the natural land surface. These, together with operational controls, will also avoid or minimize impacts from noise. Similarly, these, together with the dust suppression plan, will avoid or minimized impacts from dust. And, there is simply no reason to believe that odors will be generated due to the types of materials which the facility will recover or landfill.

Further, in conducting the cost/benefit analysis, LDEQ is required to consider off-setting benefits by the facility. As noted, the pig pens will be eliminated. In addition, the existing pits will be filled. At present they represent a potential heath hazard to area children who might wish to swim in them, and are a potential vector hazard. Further, although the site is kept locked by the land owner, it is unattended and in a fairly isolated area accessible via roads that do not pass any houses. Thus, the site; including the pits, represents a fairly unsecured area which could be used for "midnight" dumping of hazardous wastes and other potentially dangerous materials in or near the wetlands and unnamed stream. NRRI's operations will eliminate these potential adverse impacts, any one of which would have much worse adverse impacts on residences in the vicinity of Ronaldson Field.

ii. Commercial

NRRI's facility will have no impact on commercial land use in the area because there is no such use on the site or in its vicinity, other than the pig pens noted above. Given the complaints about them, it appears that their elimination will have a positive impact on the human environment.

iii. Industrial

NRRI's facility and operations will have no adverse impact on industrial land use. The site is in Industrial Area No. 4 created in the City/Parish's Plan of Government, zoned M-2 (Heavy Industrial), within the boundaries of Northgate Industrial Park, and under the Horizon Plan, adopted by the City Parish to control land development through 2010, the area is for industrial development. There are two (2) gas pipelines on the site. Neither will be disturbed by NRRI's operations. Rather, NRRI's presence will add security for these pipelines.

In the adjoining areas of Industrial Area No. 4 are other industrial activities. These include a pipe coating facility and a municipal recycling/transfer stations operated by BFI. The material recovery and C&D landfill on Ronaldson Field will have no adverse impact on such industrial uses, and is consistent with them. In fact, the proximity of NRRI's operations to those of BFI may create greater awareness of recycling and materials recovery, and so promote efforts which benefit the environment by reducing waste streams for disposal.

Discussed in greater detail below is the fact that the Louisiana Department of Transportation & Development has promulgated regulations to promote the re-use and recycling of bridge and road building materials. However, since there are no commercial C&D facilities in EBR Parish, contractors who wish to have access to used concrete and other materials falling under the DOTD regulations must stock pile such on their own property, or else forego participating the DOTD program. NRRI's operations at Ronaldson Field will create a central facility where such materials are available.

iv. Institutional

The only institutional land use in the area is the church referred to above. For the reasons noted, the materials recovery and C&D landfill will have only minor adverse impacts, and even such impacts are off-set by other factors.

v. Recreational

There will be no adverse impacts on recreational land use on or near the site since there are no public recreational sites near the site. Moreover, given the area is in Industrial Area No. 4, zoned M-2 and under the Horizon Plan the area is for industrial development, it is unlikely that there will be any recreational land use in the area. During the public hearing it was alleged that someone had promised the local residents that the borrow pit would be turned into a public fishing pond and set aside for recreational use. NRRI has located no one who admits to making that representation and no one as ever been identified as making it. Given the legal restrictions on the property and the fact that the site is in private ownership, it is doubtful that any one with the authority to make such a representation made it. Further, the land owners have advised NRRI of their attempts to market the property for sale as its highest and best use, which is industrial.

The land to the north of Rafe Mayer Road east of the facility's entrance is undeveloped. Given the land development in the area, the highest and best use for that area is probably commercial or industrial. NRRI's operations should have no adverse impact on such a use, and may easily benefit it since materials recovered may be used in the development of such uses.

In addition, NRRI's facility will put back into commerce land currently vacant which has been used in the past for an industrial use, a borrow pit. NRRI will thus re-develop a previously used site. Further, when NRRI's operations are concluded, a vegetated area will be created.

Thus, an examination of the facts show that all real and potential adverse impacts upon the human environment and land use have been avoided or minimized to the maximum extent possible. Further, in a number of significant ways NRRI's activities will actually improve the human environment. By analyzing the various relevant factors applicable to this IT Question, it is clear that the proposed facility will avoid or minimize any real or potential adverse environmental effects to the maximum extent possible. This answer supports granting the permit.

B. Does a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of the proposed facility demonstrate that the latter outweighs the former?

1. Yes. A thorough evaluation of site-specific benefits and adverse impacts demonstrates that the proposed facility offers benefits to the community far in excess of any marginal environmental costs. East Baton Rouge Parish needs a regulated Type III Construction and Demolition Debris Landfill to accommodate the demand created by increased construction and the City's "Operation Takedown". The City's North Landfill is currently exceeding its waste handling projections due to the volume of C&D debris generated from local construction activity. There are currently no permitted, commercially-operated Type III C&D landfills in East Baton Rouge Parish. This facility will be located in an area zoned for industrial use and will pose minimal, if any, adverse impacts to the environment or the local public health and welfare. In this case, the social and economic benefits far outweigh any environmental impact costs.

2. Discussion

The need for safe, efficient and economic disposal of construction and demolition debris in the Baton Rouge community is evident. The City-Parish Type I and II "North Landfill" is currently exceeding its waste handling projections due to the volume of C&D debris generated from local construction activities and "Operation Takedown". There are no other permitted, commercially-operated Type III C&D landfills in East Baton Rouge Parish.

The site selection for any landfill is difficult and involves numerous environmental, social and economic factors. A thorough consideration of site-specific benefits and adverse impacts shows that the proposed facility offers benefits to the community far in excess of any environmental costs.

There are no direct environmental monetary costs associated with this landfill and indirect environmental costs are few. The project entails the conversion of existing low quality farm land (cow pasture and pig farm) and a recently excavated borrow pit into a regulated construction and demolition debris landfill. Potential problems associated with loss of wetlands, destruction of wildlife habitat, noise, litter, fires, odors and contamination of groundwater and surface waters have been avoided or minimized to the greatest extent possible.

a) Potential non-monetary impacts:

ELEMENT	IMPACT
Wildlife Habitat	No impact no wildlife in area.
Native Vegetation	No impact, only pasture land.
Water Quality	Water quality in the receiving stream will probably be improved. Unregulated non-point source runoff from grazing operations will be eliminated. Rainfall runoff from the site will be sampled and tested in accordance with the LDEQ permit.
Air Quality	Minimal effect. Periodic soil dust emissions will be suppressed using water spray. This is a temporary issue that will not exist upon capping of the landfill and planting of the site with vegetation.
Loss of Wetlands	No impact, existing wetlands not affected.
Noise and Visual	Minimal effect. Wide, landscaped buffers and natural barriers surround the site. These are temporary issues that will not exist upon capping of the landfill and planting of the site with vegetation.

Flood Potential	No impact.

b) The social and economic benefits of this project and this site, in particular, include:

ELEMENT	BENEFIT
Eliminates Public	Eliminates unsupervised water-filled borrow pit in an industrial area of the parish that has the adverse potential to attract children.
	Eliminates unsupervised water-filled borrow pit in an industrial area of the parish that has the adverse potential to provide a breeding area for mosquitos and other vectors.
	Eliminates unsupervised water-filled borrow pit in an industrial area of the parish that has the adverse potential to attract illegal hazardous waste dumping.
Regulated Waste Disposal	Offers a safe, efficient and economic alternative for the proper disposal of construction and demolition debris due to proximity of the site to the primary haul route to the City-Parish North Landfill and less costly construction requirements than the North Landfill.
	Reserves space in costly City-Parish North Landfill for waste that must be disposed of in more stringent environment.
	Reduces potential for unregulated disposal of C&D debris.

Long-term Land Use	After the landfill is capped and planted with vegetation, this site will be permanently out of commerce for any future commercial or industrial activity.

Land disposal of solid waste has been determined by previous City-Parish studies (Cox-Walker report, 1982 Exhibit "C", and Camp, Dresser & McKee, 1987), attached hereto as Exhibit "A", to be the most cost-effective and environmentally sound means available for the Baton Rouge community to dispose of construction and demolition debris. When the marginal environmental impacts of the proposed facility are compared to its social and economic benefits, the benefits clearly outweigh the environmental costs. None of the other sites considered for this facility or other available methods or technologies impose a lesser environmental cost nor greater social benefit. Alternative methods or more remote sites demand a higher monetary and societal cost due to increased energy consumption, land values and transportation.

C. Are there alternative projects which would offer more protection to the environment without unduly curtailing non-environmental benefits?

1. No. The proposed facility is located in an industrial use area of the parish and in close proximity to the new North Landfill. Each of the alternatives previously considered by the governmental authorities are less environmentally protective than the proposed facility. Due to the minimal potential adverse environmental impacts from this project and the public need for a regulated facility of this type, there are no alternative projects which offer more protection to the environment than the proposed Ronaldson Field Landfill.

2. Discussion.

To answer this question, NRRI conducted an extensive evaluation of publicly available information. It relied heavily upon information in various public documents prepared for the City/Parish to develop its Comprehensive Solid Waste Plan and the Solid Waste Element of the Horizon Plan. The drafters of these documents evaluated and considered possible alternatives to land filling, but concluded that the most environmentally friendly method of dealing with solid waste, absent and in addition to curtailing generation, was to construct landfills. In addition to considering these documents and studies, NRRI consulted directly with City/Parish officials regarding operations of the City's North Landfill and also with the drafters of the City's Horizon Plan.

The conclusions of the drafters of these studies and plans listed limited options for dealing with solid waste, including only land filling (the chosen alternative project), incineration or "Resource Recovery", recycling and stock piling. For numerous reasons, analysis of these possible alternative projects leads to the conclusion that construction of a C&D facility is the most environmentally friendly alternative and the only practical alternative for disposing of this type of waste. Moreover, NRRI's C&D facility is designed to provide services which the City/Parish recognized a need for, but which it chose not to provide. The City/Parish itself has created additional need for NRRI's C&D facility through its very successful "Operation Takedown" program. NRRI will fill the gap left in the solid waste plan for East Baton Rouge Parish ("EBR").

Submitted herewith as Exhibit A is a copy of the Comprehensive Solid Waste Plan for EBR dated August 1987 (hereinafter "1987 Report"). The drafters concluded and recommended the development of material recovery programs in EBR. See p. 1-3. However, the only two (2) solid waste management options considered viable are disposal in a large (300+ acre) sanitary landfill and "Resource Recovery". "Resource Recovery" is discussed in Section 5 of the 1987 Report. Unfortunately, "Resource Recovery", pursuant to the 1987 Report, is essentially "incineration."

There are obvious problems associated with this form of "Resource Recovery", or incineration. First, municipal incinerator ash is classified by EPA as a hazardous waste. City of Chicago v. Envtl. Defense Fund, 511 U.S. 302, 114 S.Ct. 1588, 128 L.Ed. 2d 302 (1994). Hazardous waste also has to be disposed of and it is quite costly to properly dispose of hazardous waste. More importantly, no option that leads to the generation of hazardous waste from solid waste is in any way viable. Generating hazardous waste rather than engaging in materials recovery at Ronaldson Field will serve to increase rather than reduce environmental burdens.

Second, incineration causes the emission of various air pollutants. Obviously, incineration would serve to increase substantially the level of air pollutants entering the ambient air, and generally, incineration generates greater concern on the part of surrounding populations. A perfect example is the Total Woodwaste, Inc. woodwaste disposal facility. The City/Parish entered into a contract with Total Woodwaste, Inc. for woodwaste disposal. Total woodwaste burns at least some of its waste stream at its two (2) facilities in East Baton Rouge Parish on Pecue Road and at the old Acme Brick property at U.S. Highway 61. During the public hearing on the permit for these facilities, Mr. W. D. Cooper complained about this. Transcript at pp. 43-44. Although Total Woodwaste uses an "air curtain" to reduce emissions from the incineration process, there are still some emissions.

To avoid the problems associated with incineration, NRRI has proposed handling woodwaste for actual materials recovery, to the extent possible, combined with land filling only that material which cannot be recovered for a useful purpose.

In conducting the determination of whether there was an alternative project, NRRI also reviewed the "Final Report: Wastewater, Solid Waste and Drainage Element" for the Horizon Plan, dated June 1991 (hereinafter "Final Report"). One copy is attached hereto as Exhibit "B." The Executive Summary in the Final Report concludes, in part, recycling and regular and reliable collection are important needs. The Executive Summary stated:

> 1. The need to recycle as much of the solid waste as possible. The present method of solid waste disposal is placement in a sanitary landfill. The cost of operating landfills in the face of increasing environmental regulations makes it imperative to reduce the volume of solid waste to a minimum.
>
> .....
>
> 6. The need for regular and reliable collection of other than garbage wastes. Different policies are in effect inside and outside of city limits.

Neither of these alternatives have been implemented. Clearly, Ronaldson Field will help achieve these two goals. First, materials recovery, as will occur at Ronaldson Field, reduces the volume of woodwaste that must be land filled or incinerated. It is substantially to the advantage of NRRI to recover and sell as much recoverable construction materials as possible. The potential to increase income is an incentive to recover and reuse as much construction and demolition waste as possible.

Second, as the Final Report notes, there is no systematic collection system for solid wastes other than garbage. Though NRRI will not provide its own collection system, it will provide a means of collecting construction and demolition debris in a single location close to the source of the generation of these materials. Currently, there are no permitted, commercially-operated C&D facilities in East Baton Rouge Parish, notwithstanding the enormous need for a location to recover as much material as possible and to landfill the remainder. This need is heightened not only by the upswing in construction in East Baton Rouge over the last several years, but also by the successful "Operation Takedown" Program which is providing substantial benefits to the community.

The currently available alternatives for woodwaste only are (1) land filling in the City's North Landfill and (2) incineration at Total Woodwaste. Neither of these are viable alternatives. The City's North Landfill is needed for the disposal of solid wastes of which there is no hope of recovering materials. Moreover, the great costs associated with permitting and constructing the North Landfill alone justify any and all efforts, including construction of Ronaldson Field; to extend the life of the North Landfill. Further, once the North Landfill is full and closed, this extremely expensive process will start all over again. In regard to incineration, it is an alternative only for

woodwaste and not for the remainder of construction and demolition debris. It simply makes sense to construct Ronaldson Field, to recover as much construction and demolition materials as possible and to landfill non-reusable materials in a location other than the North Landfill. And, to reiterate the extremely important point, currently, there are no permitted, commercially-operated C&D facilities in East Baton Rouge Parish, notwithstanding the significant need.

The practice of disposing of C&D debris in the North Landfill not only wastes scarce taxpayer dollars, but also reduces the life span of the landfill. Construction of Ronaldson Field and diversion of construction and demolition debris from disposal in the North Landfill to disposal at Ronaldson Field will extend the life of the North Landfill and save considerable public, monetary resources. Also, materials that are not presently disposed of in the North Landfill or partially incinerated may be improperly or illegally disposed of at unpermitted and unregulated sites, roadsides and fields. Historically, much construction and demolition debris has been disposed illegally in the nearest unpermitted and unregulated sites, roadsides and fields. Construction at Ronaldson Field serves to provide an alternative to this form of illegal disposal.

The Final Report (Exhibit B) discussed, as alternative projects, a recycling center, land filling, incineration or working with a private company as a solution. See Final Report at p. 76-78 and Table 9. Additionally, due to the promulgation of regulations regarding the recycling of bridge and road building materials by the Louisiana Department of Transportation and Development, contractors are forced to either stockpile materials to eventually recycle some or are unable to participate in the recycling effort. Working with a private company, such as NRRI, will solve the problems associated with recovery of C&D debris and land filling of non-reusable materials in an environmentally friendly and responsible manner.

The only viable alternative project and the most environmentally protective one was identified in the Solid Waste Element of the Horizon Plan. The identified viable alternative is to work with NRRI and to permit it to conduct substantial materials recovery and responsible and environmentally protective land filling of non-reusable C&D debris. See Final Report (Exhibit B) at p. 78. In this way, Objective 1 of the Final Report, "[t]o promote the efficient and environmentally sound reuse and marketing of recoverable waste resources," is achieved. All of the alternatives identified are less environmentally protective.

D. **Are there alternative sites which would offer more protection to the environment than the proposed facility without unduly curtailing non-environmental benefits?**

1. No. The proposed facility is located in an industrial area of the parish and in close proximity to the new North Landfill. It also encompasses controls necessary to minimize adverse environmental and social impacts. Due to the minimal potential adverse environmental impacts from this project and the public need for a regulated facility of this type, there are no alternative sites that offer more protection to the environment than the proposed Ronaldson Field Landfill.

2. Discussion.

Many persons have made the erroneous allegation that NRRI failed to consider alternative sites, see e.g., LEAN comments at p. 5. Actually, NRRI made extensive efforts to identify alternative sites. NRRI's alternative sites analysis consisted of three (3) elements. First, it was aided in this process by its consultants and counsel who have extensive experience with solid waste and landfill issues in this parish and surrounding ones, zoning, land use and the City's Plan of Government. Second, a large amount of publicly available information was relied upon by NRRI in the site selection. Third, NRRI and its consultants considered and evaluated the suitability of possible alternative sites.

One of the undersigned is a principal in the successor firm to Chenevert-Soderberg Architects. Chenevert-Soderberg was one of the three principal drafters of the Comprehensive Land Use and Development Plan for the City of Baton Rouge/Parish of East Baton Rouge which includes the Wastewater, Solid Waste and Drainage Element, attached hereto as Exhibit "B". This is the detailed report underlying the Solid Waste provisions of the City/Parish's Horizon Plan, which governs land use and development through 2010.

NRRI's counsel is the law firm of Breazeale, Sachse and Wilson, L.L.P. and Mr. William F. Ridlon, II, who was formerly employed by that firm. In 1988 that firm was retained by the City/Parish in connection with obtaining the permit for the North Landfill issued by LDEQ on January 9, 1992. That firm was subsequently retained to represent the City/Parish in the case captioned "City of Baton Rouge vs. Kaiser Aluminum & Chemical Corp.", No. CA 92-0039-A, U.S. District Court, Middle District of Louisiana, which was the proceeding concerning the City/Parish's expropriation of the North Landfill site. Mr. Ridlon was involved in both of those projects and, was formerly an Assistant Attorney General, Louisiana Department of Justice. While in that position, he served as Trial Attorney for the State in the suit seeking the cleanup of the Petro Processors Superfund Site and the Department of Justice's intervention in the proceedings involving Rollins' final hazardous waste permit application. Further, Breazeale, Sachse and Wilson, L.L.P. represented the City

of Shreveport in the proceedings involving its sanitary and industrial landfill permit. Because of their prior experience, these persons were quickly and efficiently able to direct NRRI to public information to cull through the available data so that NRRI could focus on appropriate areas and issues in selecting the best available site. Largely, the inaccurate opposition comments reflect that they have not reviewed the public information. NRRI does not have to reinvent the wheel. Rather, it can, and did, rely upon the extensive, public information available which its opponents have either overlooked or ignored.

In the early 1980's, the Department of Natural Resources, Office of Environmental Affairs, LDEQ's predecessor agency, funded studies for solid waste plans for each parish. Attached hereto as Exhibit "C" is the "East Baton Rouge Parish Solid Waste Plan, Phase II - Study and Plan Development (Final Report)" dated August 1982, prepared for the City/Parish by Cox, Walker & Associates, Inc. (hereinafter "1982 Report"). It concluded that 1.8 sanitary landfills were needed to serve EBR Parish in light of anticipated disposal rates and population growth. This projection used EPA's model. See the Report at pp. 14-15.

Although somewhat dated, the 1982 report contains some pertinent information and conclusions. Exhibit "C" to the 1982 report identifies "Flood Prone Areas" in EBR Parish. A fairly large area outside such areas is a triangle formed by Highways 19 and 61, and a line between Baker and Alsen, especially north and south of Highway 423 (Thomas Road). Additionally such areas are along Highway 61 north of Alsen, in the vicinity of what later became the North Landfill. This corresponds with Exhibit 9 to the Permit Application which shows that none of Ronaldson Field is in the 100 year flood plain.

Exhibit "D" to the 1982 Report shows the direction of groundwater movement in the "400 foot aquifer", which is the upper most freshwater aquifer. It indicates that the groundwater in that aquifer is drawn south from the Baker and Alsen areas towards the industrial area near the State Capital. The 1982 Report in its Appendix I also contains a Geohydrologic Cross Section for EBR Parish. The borings indicate that the "400 foot aquifer" goes considerably deeper beneath the surface south of Alsen. This corresponds to Exhibit 22 in the Permit Application. See the Aquifer Recharge Potential map contained therein that shows that Ronaldson Field is in a Low Recharge Potential area whereas areas to the north of the site in EBR Parish and parishes to the north of it are Moderate and High Recharge Potential areas for aquifers.

The 1982 Report at p. 53 identified six (6) alternatives for the EBR Solid Waste Plan. Eventually, the City/Parish followed Alternative No. 3, constructing a new landfill to replace the Devil's Swamp Landfill. However, the North Landfill is different from this project in three (3) ways pertinent herein. First, the North Landfill is a "Regional Landfill," and so potentially attracts solid wastes into the Parish, since

there are no publicly owned sanitary landfills in surrounding parishes. Second, the North Landfill is both a Type I (industrial non-hazardous) and Type II residential/commercial solid waste landfill. Although it chooses to take only limited amounts of Type I waste from local governmental agencies in EBR Parish, this increases the volume of waste disposal, shortening its service life. Finally, EBR Parish has initiated aggressive recycling and waste minimization programs. It has not, however, identified any potential sites for a Type III C&D landfill or taken any actions to promote recycling of same. Page 61 of the 1982 Report noted:

> It is difficult to site a new landfill due to environmental considerations and frequent local opposition.

In connection with the North Landfill project, in 1987 the City/Parish retained the consulting firm of Camp Dresser & McKee ("CDM") to develop a "Comprehensive Solid Waste Plan" ("1987 Report"), attached hereto as Exhibit "A."

The 1987 Report studied two (2) types of solid waste management. First, it concluded that a new sanitary landfill was needed for EBR Parish and evaluated some 20 potential sites, including detailed evaluations of five (5) potential sites. Second, it studied "Resource Recovery" (various forms of incineration to generate steam and/or electricity, see 1987 Report at Section 5), and evaluated 41 potential sites with detailed evaluations of six (6) potential sites.

The 1987 Report did not make a detailed investigation or analysis of material recovery programs. However, at p. 1-3 it recommended:

> .....
>
> 6. Encouraging and promoting the development of recycling and material recovery programs in the Parish.

In addition to the 61 sites on which information was provided, the 1987 Report identified certain general site zones remaining after the positive and negative site screening criteria were applied. As to landfills, the report states at p. 7-25:

> Four general site zones emerge: one in the northeastern area off of Greenwald (sic) Springs - Port Hudson Road; one in the northwest off of New Scenic Highway; another in the central eastern parts of the Parish adjacent to Choctaw; and the remaining zone is in the southeastern part of the Parish near LSU.

As to Resource Recovery sites, the Report at p. 7-34 identified three zones:

> Northwest Area - Generally located along Scenic Highway and the industrial corridor.
>
> Central East - Generally located along Choctaw Drive within the City of Baton Rouge limits.
>
> Southeast Area - Generally located along Nicholson Drive, south of Louisiana State University.

The 1987 Report at p. 7-3 listed criteria for identifying potential sites and provided detailed discussions of those criteria. One of the "Institutional" criteria is zoning and land use. The "Engineering" criteria include drainage and flood plains, accessibility (e.g., road networks), and comparative costs (which includes transportation costs). Applying these criteria eliminates all of the general zones except for the Northwest Area along Scenic Highway.

The City/Parish has enacted zoning and land use ordinances which greatly restrict the potential available sites.

LDEQ has recognized that its role in industrial siting issues "is more limited in scope" than that of local governments. While LDEQ will offer technical assistance, "the decision to zone and approve sites for industrial use still belongs to local government". See LDEQ Position Paper dated June 28, 1990 from Paul H. Templet, LDEQ Secretary, attached hereto as Exhibit "D."

The Louisiana Supreme Court reached the same conclusion in Palermo Land Co. v. Planning Comm'n of Calcasieu Parish, 561 So.2d 482 (La. 1990). The Louisiana Supreme Court held that local governments cannot set stricter geological or engineering standards than LDEQ for siting of sanitary landfills. However, other siting factors are the appropriate subject of local land use planning.

The City/Parish has enacted comprehensive zoning ordinances and, also, designated six (6) Industrial Areas in its Plan of Government. Under the zoning ordinances, landfills of any new type must be in areas zoned "M-2, Heavy Industrial". The only prohibited use in M-2 zones is residential. Attached hereto as Exhibit "E" is one copy of the zoning ordinance for M-2.

Ronaldson Field is in Industrial Area No. 4 and is zoned M-2, and has been so zoned (or, "M-3", the predecessor of the current M-2) for nearly 40 years.

It is extremely difficult to have property zoned M-2. When the North Landfill was being developed, after the City/Parish and Kaiser had entered into an agreement for the sale of the Land, Kaiser applied to the EBR Metropolitan Council to have approximately 1/3 of the site re-zoned from Rural to M-2. The remainder was already zoned M-2. Although bordered by such uses as the Grant Chemical facility and Kaiser's Red Mud Lake No: 2 (a Type I surface impoundment) and identified as the future North Landfill site, the Metropolitan Council voted unanimously to deny the zoning change. On a subsequent vote, the change to M-2 was approved only after the Mayor-President became directly involved and gave his strong support.

In addition to the findings in the above report, NRRI closely studied property owned by Headon, Inc. before Ronaldson Field. This property contained an existing pit as on Ronaldson Field. On March 24, 1995, Brian Development Company, Inc., acting for NRRI, executed an Option to Purchase the Headon property. One copy of the option agreement is attached hereto as Exhibit "F". The Headon property is located on the northwest corner of Old Scenic Highway and Groom Road. However, it is zoned Rural, is not within one of the six (6) Industrial Areas, and is not identified in the City/Parish's Horizon Plan as an area for industrial development. After several meetings with the City/Parish, NRRI was informed it was highly unlikely that the Headon property would be re-zoned to M-2. The facts, however, contrary to LEAN's erroneous allegations, show that NRRI seriously evaluated this site before evaluation Ronaldson Field.

On April 21, 1995, Mr. Michael B. Songy of CSRS wrote DPW concerning a C&D landfill at the Headon property. One copy of the letter is attached hereto as Exhibit "G." Meetings occurred to discuss the issues during which NRRI was provided with answers prepared by Mr. Jack Ensminger, Environmental Coordinator for the City/Parish's Department of Public Works. One copy is attached hereto as Exhibit "H." It states, *inter alia*:

.....

6. Special zoning requirements must be met for either a earth mining operations or a landfill operation.

Since a geotechnical investigation and an environmental site assessment of the Headon property had been made which revealed no insurmountable problems, the record shows that NRRI considered, but did not further pursue, permitting the Headon property because it was not zoned M-2, and it was highly unlikely to be re-zoned.

Overlaying the M-2 zoning with flood prone areas (see Exhibit "D" to the 1982 Report, attached herewith as Exhibit "C," basically eliminates for consideration most areas outside the northwest area along Highway 61 from consideration. The M-2 zoned areas in the other areas are either in, or immediately adjacent to, flood prone areas. Certain geographic factors tremendously limit the availability of suitable

sites. These include the presence of the Mississippi River along EBR Parish's western boundary; the Amite River along the east; the Comite River which transects the northern and eastern portions of the Parish; the proposed Comite Diversion Channel slightly north of the City of Baker and the North Landfill and the low lying areas in the southern half of the Parish.

However, the 1987 Report at Figure 7-16 identified five (5) potentially suitable "Resource Recovery" sites in the immediate area of the intersection of Highway 19 and Thomas Road, one of which appears to be Ronaldson Field.

Figure 7-16 also identified a potential cluster of sites on Highway 30 (Nicholson Drive) in the south central part of EBR Parish. However, the 1987 Report and the Horizon Plan adopted in 1992 eliminated that area from consideration. The 1987 Report at p. 7-7 states that the "ideal location" for a landfill "is near the waste generation centroid". The Report analyzed EBR Parish by dividing it into six (6) planning districts and reviewing them in terms of waste generation and transportation networks. Based on this, the six (6) waste generation centroids were identified. They are shown on Figure 7-14.

The 1987 Report further stated that "urbanized areas are unacceptable sites for potential landfills". See p. 7-8. It stated that locating near refuse generation centroid reduces haul distance. Id. It stated that "[a]ccess to the site from major highway systems should be short and direct". See p. 7-10. And, to the extent possible, the recovery site should be in the line between the centroid of refuse generation and the disposed site. See p. 7-8.

The cluster of potential sites in the south central part of EBR Parish does not meet these criteria. However, Ronaldson Field has access to Highway 19 via Rafe Mayer Road, which was recently upgraded to the highest standards for parish roads. There are no residences along Rafe Mayer Road between Ronaldson Field and Highway 19. And, Ronaldson Field is next to the waste generation centroid for the northwest area of the parish and is between the North Landfill and the other waste generation centroids along a major transport artery (Highway 19) easily accessible from the major transport routes to the North Landfill.

Figure 4-2 shows the population centroids for the six (6) planning areas. They are essentially the same as the waste generation centroids. Table 4-5 at p. 4-5 shows the anticipated population growth. For EBR Parish as a whole, over a 30% population increase is expected, with almost all of the growth in the northeast, southeast and south parts of the Parish.

To the extent possible, however, landfills should not be located in the path of planned development and population growth, as it would tend to limit the highest and best use of such land. Still, a C&D landfill must be conveniently located

and accessible to such development and growth so that materials recovery is promoted. Again, the analysis leads to the conclusion that the area in the vicinity of Ronaldson Field is the ideal area.

The 1987 Report's conclusions and recommendations were reviewed by the drafters of, and essentially adopted in the Final Report, Wastewater, Solid Waste, and Drainage Element for the Horizon Plan, dated June 1991, attached hereto as Exhibit "B."

The Horizon Plan was adopted by Resolution 31988 on January 7, 1992 by the Metropolitan Council. It became effective April 1, 1992. Attached hereto as Exhibit "I" is a copy of a map showing the existing and anticipated land use under the Horizon Plan and anticipated population growth centers. Industrial land use areas are marked in pink.

Under the Horizon Plan, any industrial use outside these areas requires extensive review and approvals from various agencies in the City/Parish Government since it is not consistent with the Horizon Plan. This is in addition to M-2 zoning. Overlaying all factors discussed above leaves only the area near Ronaldson Field as a potential site.

However, not even all of the industrial area near Ronaldson Field is available. LDEQ regulations prohibit landfills within 10,000 feet of the Baton Rouge Metropolitan Airport. See the 1987 Report at p 7-23 and Figure 7-3. Ronaldson Field is beyond that distance.

Further, there is consideration of the Industrial Areas established by the Plan of Government for the City/Parish. Attached hereto as Exhibit "J" is Chapter 1 of the Plan of Government which defines Industrial Use Areas. Attached hereto as Exhibit "K" is a map of the six (6) Industrial Areas. Ronaldson Field is in Industrial Use Area No. 4, which was created over 30 years ago.

It is unlawful for any building in an Industrial Area to be used in whole or in part for residential purposes. Instead, such areas are to be "predominantly used" for industrial purposes.

NRRI, however, also considered several other sites before Ronaldson Field. Attached hereto as Exhibit "L" is a map showing the general location of the five (5) tracts NRRI went so far as to inquire about the purchase of. Inquiries were first made of the owners of the Munson, Watts and Delotman properties in the summer of 1995 in addition to the Headon property. See Exhibits "M" and "N", submitted herewith.

These properties were considered because they are in the immediate vicinity of the North Landfill. The owners of the Watts and Delotman properties indicated no interest in selling. Valuable mineral interests exist on these properties. A landfill operation would restrict future drilling. For example, when the City/Parish expropriated the North Landfill site, in its pleadings, it specifically reserved to Kaiser the mineral interests in perpetuity. Similarly, when the City/Parish purchased the property for the North Landfill entrance road, the public records show it reserved the mineral interests to the sellers in perpetuity. However, because NRRI is a private entity, it cannot reserve to sellers mineral interests in perpetuity. Rather, the Louisiana Mineral Code sets a 10 year prescriptive period. If, during that time the mineral interests are not developed, they become the property of the surface landowner.

Several problems were found with the Munson property. First, it is in the path of the proposed Comite Diversion Channel. Second, West Irene Road is a substandard road which is not suited for heavy truck traffic. Kaiser made this point several times in documents filed with the federal court in the North Landfill expropriation case. Inter alia, the right-of-way for West Irene Road is only 40 feet, rather than 60 feet as needed for heavy traffic.

Moreover, it was also apparent that the Louisiana & Arkansas Railway Company would object to any landfill located on West Irene Road. Attached hereto as Exhibit "O" is one copy of the Railroad's comments on the North Landfill permit. West Irene Road crosses a railcar storage yard and switching operation. This would result in a substantial safety hazard when switching operations blocked traffic turning off Highway 61.

In the North Landfill permit, LDEQ put a Special Condition in the permit issued January 9, 1992 to address the Railroad's objections. As a result, the City/Parish purchased nearly 30 acres so that an entrance could be built some 1500 feet south of the southern end of the railcar storage yard, or over 2500 feet south of West Irene Road.

Since the entrance road to the North Landfill does not connect to any public road connecting to West Irene Road, it was apparent that no site along that road has access to Highway 61.

NRRI also considered the Old Acme Brick property. It is located in the "industrial corridor" on the west side of Highway 61 immediately north of its intersection with Old Scenic Highway (Highway 964). However, it is located in a 100 year flood plain and is the site of a Type III woodwaste facility operated by Total Woodwaste, Inc.

Prior to submitting its permit application, NRRI also considered and rejected additional sites south of the Delotman property on Highway 61. The geology of such sites is suspect. In connection with the North Landfill permit application, Mr. Bradford C. Hanson of the Louisiana Geological Survey submitted an analysis of the North Landfill site showing an abrupt change in the geology for the southern 1/3 of the site. Although the northern two-thirds is suitable for construction of a landfill, the southern 1/3 is laced of sand stringers and lenses, silty soils and similar features. Mr. Hanson also reviewed the geology of the Rollins site and showed the existence of a large sand channel through it and submitted an exhibit into the record of the Rollins' permit proceedings before LDEQ showing his findings. Moreover, that area is in the vicinity of the Scenic Highway portion of the Petro Processors Superfund Site.

LDEQ's Inactive and Abandoned Sites Division records and the records of the suit in the U. S. District Court for the Middle District of Louisiana involving Petro Processors contain many, detailed analyses of the complex soil and groundwater conditions in the vicinity of the Petro Processors Superfund Site. Even a cursory review of these public records shows that the area is not suited for construction of a landfill, without even considering issues such as access, flood plains, zoning or the Horizon Plan.

As noted above, NRRI then evaluated the Headon property and executed an Option to Purchase the same. An Environmental Site Assessment Report was prepared. Attached hereto as Exhibits "P" and "Q" are the April 28, 1995 letter from Engineering Associates, Inc. and the report. A detailed geotechnical investigation was performed before NRRI's meetings with City/Parish representatives revealed that the lack of M-2 zoning and inconsistency with the Horizon Plan prevented developing it as a C&D landfill.

The geotechnical investigation, included in the Permit Application, however, gives NRRI the information to rebut the many erroneous comments made during the public hearing about the existence of some aquifer or underground spring at Ronaldson Field. Several persons, including Florence Robinson, Ph.D., Biology, claimed such existed. As proof, they claimed that the Headon property (a/k/a the Rollins' pit property) also was a borrow pit location, but was "dry". See Transcript at pp. 21 and 39. NRRI is very familiar with both properties. Attached hereto as Exhibit "R" are photographs of the Headon property taken before and after the public hearing. Like Ronaldson Field, the pit on the Headon property has retained water. Unlike Ronaldson Field, the dredge used to excavate the borrow material was left in the pit. In short, the comments made at the public hearing, and the LEAN comments, have no basis in fact.

The above discussion is not meant to imply that NRRI did not consider a possible out-of-parish sites. However, a combination of factors, including the additional cost of transporting C&D debris an extended distance, made it infeasible to choose a site out of the parish.

The 1987 Report and the 1991 Final Report for the Horizon Plan note the effect of haul distances on disposal costs. Disposal cost is the tipping fee plus the cost of hauling to the disposal site (usually calculated as an average cost per mile). For the reasons explained above, and as documented in the 1987 Report and 1991 Final Report, the best site for a C&D landfill that will divert materials that can be recovered from the North Landfill is a site near the North Landfill; between it and the waste generation centroids; between it and population growth centroids, but not in development paths, and located on or near major transportation arteries. No out-of-parish site can satisfy such criteria. Facilities located at any greater distance from the centroid of waste generation require expenditures for transport which exceed the benefit received.

In the public hearing, a student attorney representing LEAN noted that NRRI's solid waste permit application indicates an "unlimited service area". Transcript at p. 56. That student attorney correctly noted that means NRRI may accept waste from other parishes or out of state. In fact, NRRI is required by law to accept Topography C&D debris which is in interstate commerce.

In 1978 the United States Supreme Court held that State laws barring the interstate transport of solid waste for disposal violated the U. S. Constitution and were illegal. City of Philadelphia v. New Jersey, 437 U.S. 617, 98 S.Ct. 2531, 57 L.Ed. 2d 475 (1978). In 1992 the U. S. Supreme Court held that laws barring the transport of solid waste into a county for disposal violated the U. S. Constitution and were illegal. Fort Gratiot Sanitary Landfill, Inc. v. Michigan Dep't of Natural Resources, 504 U.S. 353, 112 S.Ct. 2019, 119 L.Ed. 2d 139 (1992). And, the U. S. District Court for the Middle District of Louisiana and the U. S. Fifth Circuit Court of Appeals held that Louisiana laws barring the importation of solid wastes from foreign countries violated the U. S. Constitution and were illegal. Chemical Waste Management, Inc. v. Templet, 770 F.Supp. 1142 (M.D. La. 1991), aff'd, 967 F.2d 1058, cert. den., 506 U.S. 1080, 113 S.Ct. 1048, 122 L.Ed. 2d 357 (1993). NRRI's attorney spoke at the public hearing and said we would meet with people and answer their questions. Transcript at p. 4. That certainly included the student attorney representing LEAN.

NRRI does not necessarily seek materials from outside EBR. However, its application only reflects settled federal law. There is no need to put an illegal provision on the geographic source of waste in the permit. However, the costs of hauling and placement of the site between the North Landfill and sources of waste generation in EBR restrict the sources to this Parish.

After reviewing the various information and potential alternative sites referred to above, as noted, NRRI first attempted developing the Headon property. However, the lack of M-2 zoning and inconsistency with the Horizon Plan barred that site. In June 1995, NRRI met with representatives of the City of Baker to discuss its annexing of the Headon property (the City of Baker, had previously annexed the eastern portion of Industrial Area No. 4. Ronaldson Field's eastern border is on Baker's City limits.) Such would eliminate these legal obstacles. The officials were unwilling to pursue further annexation.

Still, NRRI's experience with the Headon property convinced it that the best site would be one near the North Landfill, between it and waste generation centroids and growth paths, accessible to major roads and highways, geotechnically suitable, unburdened by zoning and Horizon Plan restrictions, and the site of an existing borrow pit which could be re-developed would be valuable.

During the public hearing, a student attorney for LEAN asserted that NRRI failed to consider alternative sites. Transcript at p. 55. This is clearly erroneous. NRRI relied upon the extensive public information available to guide and focus its site selection process. That information developed in LDEQ proceedings and by the City/Parish in the development of its Comprehensive Solid Waste Management Plan and its Horizon Plan increasingly focussed NRRI on Ronaldson Field.

Simply put, the objection that NRRI failed to adequately consider alternative sites or somehow selected it for some improper reason has no basis in fact. NRRI selected Ronaldson Field as part of a systematic search of readily available public information to address a demonstrated need. Solid Waste Management issues in EBR have been extensively studied for over a decade by LDEQ and the City/Parish. NRRI relied on this information. The various restraints revealed in the public information increasingly narrowed the potential sites. Ronaldson Field was not the first site whose owners NRRI contacted but was decided on by a systematic process of elimination. It was not the first site on which a geotechnical investigation was conducted. Ronaldson Field is, however, the best site identified from every reasonable standpoint. Finally, after consideration of ad available reports, consultation with its engineering and legal representatives, an Option to Purchase Ronaldson Field was executed on August 10, 1995. A copy is attached as Exhibit "S".

The opposition comments are inaccurate and indicate a lack of familiarity with this readily available public information. NRRI has always been ready to meet with anyone and answer questions. None of the opponents have ever accepted that offer.

E. **Are there mitigating measures which would offer more protection to the environment than the facility as proposed without unduly curtailing nonenvironmental benefits?**

1. No. The proposed facility is located in an industrial use area of the parish and in close proximity to the new North Landfill. It also encompasses elements, such as buffers and internal runoff controls necessary to minimize adverse environmental and social impacts. Due to the minimal adverse environmental impacts from this project and the public need for a regulated facility of this type, necessary mitigation is minimal. Nonetheless, NRRI has identified plans to implement the following mitigation measures.

2. Discussion.

NRRI identified two migitation measures which it will implement effectively ensuring additional and substantial protection of the environment. First, NRRI believes that an appropriate container for temporary storage of unacceptable waste culled from C&D debris should be included at the facility. The container was previously the subject of discussion between NRRI and LDEQ, each of which previously believed that the container would not be necessary. However, upon further evaluation, NRRI agrees the better alternative is to include a container and will acquire and use an appropriate container for this purpose. This mitigation measure is fully protective.

Second, based upon further evaluation, NRRI chose and intends to enhance the buffer beyond DEQ's requirements by planting trees and bushes along the security fence and the border of the nearby wetlands. This additional vegetation will serve the purpose of reducing the visibility of the facility and increasing absorption rates of runoff in the buffer zone.

II. <u>Response To Public Comment Regarding The Use Of Long Term Average Daily Flow v. Peak Storm Runoff Relative To The Water Discharge Permit</u>

NRRI properly incorporated the regulatory requirements regarding surface hydrology. LAC 33:VII.719 C.3. (Facility Surface Hydrology) states:

C.3. Surface runoff diversion levees, canals or devices shall be installed to prevent drainage from units which have not received final cover to adjoining areas during 24-hour/25-year event.

Unlike Type I & II facilities which must contain runoff until post-closure is completed, Type III facilities need only control runoff onto adjoining property until cover is completed. All runoff from 24-hour/25-year storm that comes in direct contact with waste in open units will be contained within the respective disposal cell.

Utilizing the "small cell method" of disposal, only one ¼-acre cell will be opened at a time while being filed with debris. The 24-hour/25-year storm event is equivalent to 9.6 inches of rainfall. Based on the ¼-acre cell and assuming zero infiltration, this event will produce 8,700 cubic feet of rainfall runoff. Rainfall collected in the open cell will ultimately be discharged through the permit outfall. All surface flow from other areas other than the open cell will be diverted away from the open cell.

Runoff from other undisturbed areas and from closed cells will be diverted into on-site drainage ditches to avert overflow onto adjoining properties. Runoff from the site (an existing cow pasture) naturally flows into the adjacent receiving stream. Although channelized, future runoff will discharge through the permitted outfall and not onto adjacent properties.

Since rainfall event and intensity are sporadic and unpredictable, the average daily rainfall was used to compute an average daily discharge for permit purposes. The basis for the determination of wastewater contaminant loading is on mass loading over the long term and not infrequent short-term loading. Note that the occurrence of peak rainfall as well as extended dry periods is accounted for in the long term average annual rainfall amounts.

A Type III landfill accepts no liquid waste, nor does it in any way create a continuous stream of wastewater. The only discharge will result from rainfall runoff.

Despite no stated or implied requirement for treatment of water from a Type III landfill in the Louisiana Department of Environmental Quality Solid Waste Regulations, all water pumped from open cells shall be sampled and tested in accordance with the water discharge permit.

III. Responses to Public Comments

The following is a summary of comments received during the public hearing and written comment period regarding the Ronaldson Field Landfill. The comments and responses are grouped into general categories of soils, operations, water discharge permit, traffic, wetlands, need for facility, regulatory, impacts to community, and zoning. Comments not specifically addressed in this section are addressed elsewhere in this submittal.

COMMENT	RESPONSE
1. SOILS	
No. and Depth of Borings	Six borings were drilled to effective depths of 40 to 45 feet below the natural ground surface. Natural ground surface at the site ranges from approximate

elevations 65 to 70. The bottom of the proposed landfill cells is elevation 35.0 feet. Placement and dept of the borings were accomplished with the concurrence of LDEQ Solid Waste Division staff. Groundwater was not encountered in any of the borings at depths of less than 40 to 45 feet, several feet below the proposed bottom of the landfill cells.

Depth of Existing Hole

The bottom of the existing hole is at approximate elevation 28.0. The bottom of the existing pit will be filled up to elevation 35.0 with a re-compacted clay liner prior to placement of any waste.

Permeability

Soils were found to be consistent both horizontally and vertically, and noted to consist of low permeability clay in all six borings. The permeability of these soils exceeds regulatory standards.

2. OPERATIONS

Birds

The landfill will not be an attraction to birds. This Type III landfill will accept only construction demolition debris which does not provide a food source to birds or other animals. No food wastes or other putrecible waste will be allowed.

Noise

Noise from landfill equipment operation will be coincident with the noise generated by existing heavy traffic and industrial activity in this area. Landfill noise will, however, be minimized by wide buffers and landscaping. In addition, the landfill will have specific operating hours with no night or Sunday operation.

Odor

This Type III landfill will accept only construction demolition debris; no putrecible waste will be allowed.

Snakes	The waste deposited in this type of landfill will not be an attraction to snakes or other wildlife. The existing wetland south of the landfill is home to various species of wildlife and amphibian life. This wetland will not be altered by this project.
Fire	The bulk of the debris accepted in this landfill is not combustible. In addition, placement of 12 inches of soil cover every 30 days forms another protection against combustion.
Dust	Dust minimization and suppression, typically by water spraying, will be an ongoing component of the normal operations of this facility.
Methane Gas	Methane gas in landfills is produced by the anaerobic decomposition of biodegradable wastes (e.g., food waste, sewage sludge, etc.). No waste of this nature will be accepted in this landfill.
Container	Minor quantities of materials, such as, paint cans, household pesticide containers, etc. will be retrieved from a truck and placed in a closed on-site container for proper disposal elsewhere.
Permit Limits	The characteristics of the water discharge effluent were established based on comparison with other existing C&D landfills and in concurrence with the LDEQ staff.
Discharge Point	The discharge point from the landfill site is fixed. Discharges from individual cells into internal ditches will vary depending on the location of the open cell. This on-site discharge will be conveyed through the interior drainage system to the permitted outfall.
Rainfall Runoff	Addressed in Section II.
Ditch Sizing	Internal ditch sizing will accommodate projected waste water flows and prevent any overflow onto adjacent properties.

Water Quality in Pit

Water in the pit will be sampled, tested and discharged, in full compliance with the LDEQ water discharge permit.

Water Quality of Receiving Stream

The LDEQ establishes limits for concentration of certain constituents based on the assimilation capacity and water quality of the receiving stream and which are compatible with downstream water basin activities.

3. TRAFFIC AND ROAD CONDITION

This road was recently reconstructed to handle heavy truck loadings due to the current and projected traffic. The landfill is situated on a primary route for heavy industrial traffic between LA Highway 19 and US Highway 61. The location of the entrance to the landfill on Rafe Mayer Road is such that hauling to the landfill from the predominate source of activity (i.e., most of East Baton Rouge Parish and via I-110 and LA 1() does not require a truck to pass a single residence on Rafe Mayer Road.

4. WETLANDS

Only a portion of the site is a wetland. The wetland area on the property has been officially determined by the US Army Corps of Engineers. This area will not be altered by the construction and operation of the landfill. A copy of the Corps determination letter is included in that permit application.

5. FACILITY NEED

The need for a facility of this type is documented in the Wastewater, Solid Waste and Drainage Element of the East Baton Rouge Parish Comprehensive Solid Waste Plan. There are currently no permitted, commercially-operated Type III C&D landfills in East Baton Rouge Parish. The proposed facility has been reviewed by the Louisiana Resource Recovery and Development Authority (LRRDA) and found to not conflict with any plans or proposed solid waste facilities.

Service Area	The service area cannot be legally restricted. The service area of this facility is and will be a function of the economics of hauling and tipping fees at other regulated landfills.
6. REGULATORY	
LDEQ Inspection	LDEQ performs periodic inspection of these facilities and operations not in conformance with provisions of its permit are subject to penalty.
No Regulated Hazardous Waste	This facility does not accept hazardous wastes. Each truck will be inspected upon arrival and rejected if containing hazardous materials.
Video	Conditions as depicted in the video shown at the public hearing are not representative of a regulated Type III C&D landfill.
7. IMPACTS	
Church/Church Playground	The adjoining property to the west includes a small church that was recently relocated to this site. A 200-buffer is next to the church with a 50-foot buffer adjacent to the undeveloped land south of the church. The landfill has specific hours of operation, none of which should conflict with regular church services.
Cancer Alley	Any mention of "Cancer Alley" in reference to south Louisiana in general, and to this site in particular, is wholly without basis. According to a 1991 report by the Epidemiology Section of the Louisiana State University Medical Center, the incidence rate for all cancers combined in South Louisiana are either the same as or lower than national rates.
Property Values	Property values rise and fall due to a variety of reasons including changes in adjacent land use. However, since the landfill is proposed for an industrially zoned area of the parish, the effects on adjacent residential tracts could hardly be diminished more than current value.

Benefits to Alsen	Some of the benefits to the development of this site as a regulated landfill: Elimination of public safety hazard Preservation of wetland area Elimination of potential site for illegal dumping Elimination of untreated non-point source runoff from cow pasture and pig farm Elimination of mosquito breeding area
Population Density	Population density for the preparation of the permit application was based on census data from the City of Baker, Louisiana. The corporate limit of Baker is immediately adjacent to the property. Since the industrial zone by law cannot contain any residential development, Baker is the closest incorporated area to the landfill with a residential population.
Recharge Area	The landfill is located in an area defined as having a low potential for groundwater recharge. By comparison, the North Landfill area is classified as having a moderate recharge potential.
8. ZONING	The zoning for the property is M-2 (Industrial Use) as well as the property being located in City-Parish Industrial Area No. 4. This is one of the six (6) industrial zones defined by East Baton Rouge Parish as areas established predominately for industrial use. The establishment of these zones contain specific language that make it unlawful to construct or alter any building for use in whole or part for residential purpose.

IV. Conclusion

In conclusion, we submit to LADEQ that the application for the Ronaldson Field Landfill fully supports the issuance of a Type III Construction & Demolition Debris Solid Waste Permit to Natural Resources Recovery, Inc. The permit application along with all supporting data meets all constitutional, statutory and regulatory requirements, and was prepared in accordance with accepted engineering practice sound financial judgment. This comprehensive document, including responses to public comments, clearly demonstrates that the proposed facility has been:

1. Selected on an objective basis, from a number of alternative sites and projects based on the insight and knowledge of our consultants, available public information, and site-specific analysis; and

2. Designated to avoid to the greatest extent possible all adverse impacts to the natural and human environment. Further, the social and economic benefits provided by the proposed project are substantially greater than the marginal environmental costs.

APPENDIX "A"

SUMMARY

The comments herein summarize the text of I, (A)(2):

A. Have the potential and real adverse environmental effects of the proposed facility been avoided to the maximum extent possible?

ELEMENT	IMPACT
Natural Environment	
Typography	The topography of the site is extremely satisfactory for this facility. The area encompassed by the landfill contains an existing borrow pit and well-drained pasture land. This property is all above the 100-year floodplain. A by-product of the re-development of this site will be the elimination of cattle grazing on this land and the elimination of a hog pen operation. Although this site has not been not laboratory tested, runoff across cattle grazing lands will typically produce non-point sources of pollution of higher than normal levels of Biochemical Oxygen Demand (BOD), and Fecal Coliform (FC) from transport of manure into adjacent waterways.
Vegetation	Vegetation is sparse on the site designated for the landfill. Most treed areas of the property containing the landfill will not be disturbed.
Geology	Soils on the site are compatible for containing waste from this type of landfill. Permeability rates are low.

Faults	There are no geologic faults within the project site.
Aquifers	The depth of the bottom of the landfill is in excess of five feet from any known aquifer. In addition to the natural ground areas, the bottom of the existing borrow pit will be sealed with a 5-foot thick layer of re-compacted clay to avert any inadvertent connection to groundwater.
Subsidence	There are no known areas of ground subsidence within the project site.
Wildlife Habitat	Wildlife habitat on the portion of the property that will contain the landfill is essentially non-existent at present. The landfill portion of the site is a recently constructed borrow pit, a pig farm and a cow pasture. The remaining portion of the property comprising a wetlands and an upland treed area will not be incorporated into the landfill.
Wetlands	An onsite determination of the extent of the wetlands on this property has been made by the US Army Corps of Engineers; this project will avoid any intrusion into the wetlands.

Human Environment and Land Use

Residential	Although there may be minimal impact to nearby residents, the siting of the landfill on the property has been carefully considered to buffer existing adjacent residences from noise, dust and visual distress. Other industrial uses allowed in the existing industrial zones could have a far greater adverse impact on existing residences.

There are several residences on the adjoining property south of the property that will contain one phase of the landfill. Residences on the south property will be separated from the landfill by at the south property will be separated from the landfill by at least 200-foot buffer and in some places by a 600-foot wide strip of land that contains the wetland and upland treed area.

The adjoining property to the west include open land and a small church that was recently re-located to this site. A 200-foot buffer is next to the church with a 50-foot buffer adjacent to the undeveloped land.

The site is bordered on the north by Rafe Mayer Road. Properties on the north side of the road are undeveloped for approximately 1800 feet of the site frontage. The remaining 900 feet of frontage contains five houses. Again a 200-foot buffer will be existing between the landfill and Rafe Mayer Road along the portion of the property where the houses are located. (The distance from the landfill to the houses will be approximately 300 feet with the inclusion of road right-of-way and onsite improvements.).

Current regulations require only a 50-foot buffer thus the proposed buffer will exceed existing requirements by 4-times.

Commercial

There are no commercial development adjoining the site.

Industrial

The property is totally within one of the six industrial zones defined by East Baton Rouge Parish as areas established

predominately for industrial use. The establishment of these zones contain specific language that make it unlawful to construct or alter any building for use in whole or part for residential purpose.

The area contains other industrial activities including a pipe coating facility and a municipal recycling center.

Institutional	Besides the church on the adjacent west property, no other institutional facility are near the site. Since the operation will be closed on Sunday there will be no disturbance of Sunday services.
Recreational	No public recreational areas are near the site.
Undeveloped Land	Land to the north, along approximately 1800 feet of frontage, is undeveloped as is the land east of the site. It is all zoned for industrial use.

Executive Summary

An Economic Analysis of the Impact of the Operation and Expansion of A Type III Construction and Demolition Debris/Wood Waste Landfill and Resource Recovery and Recycling Facility in East Baton Rouge Parish

James A. Richardson
Alumni Professor of Economics
Louisiana State University

- Natural Resources Recovery, Inc. (NRRI) seeks to renew its LDEQ permit to continue to operate a Type III Construction and Demolition Debris/Wood Waste Landfill and Resource Recovery and Recycling Facility; additionally, NRRI seeks to modify its permit to allow receipt of materials from beyond East Baton Rouge Parish and to increase the capacity of the Type III C&D facility.

- NRRI revenues reached over $7.0 million with 35 employees and payroll of $1.6 million or an average of $45,000 per year.

- NRRI projects to expand the capacity of the Type III C&D facility with construction expenditures of $1 million initiated in 2008. Expanded capacity will allow facility to remain open for 6 to 8 additional years with extension of employment and payroll.

- Annual Impact on Baton Rouge economy of operation of C&D facility is $20.4 million in overall business transactions, $3.9 million in household earnings, and 145 new jobs.

- Impact on Baton Rouge's economy of the proposed expansion is $3.2 million in overall business transactions, $0.9 million in household earnings, and 37 new jobs.

- Annual Impact of extending the life of Type III C&D facility will be extension of $20.4 million in overall business transactions; $3.9 million in household earnings; and 145 new jobs for an additional 6 to 8 years.

- Type III C&D facility will lead to lower tipping fees, among other cost savings, for businesses and persons who must dispose of solid waste. A $5 to $20 savings in tipping fees amounts to a $5.6 million to $25.7 million savings over the life expectancy of the East Baton Rouge Municipal Solid Waste Landfill, the North Landfill.

- A construction and demolition debris landfill with recovery and recycling capability leads to an extended life of the North Landfill, thereby saving money for residents of East Baton Rouge.

- The Type III C&D facility provides jobs and earnings; alternative disposal opportunities for over 16,000 business establishments in the Baton Rouge Metropolitan Area with over 280,000 employees; and reduces the disposal costs associated with doing business in this area, as well as providing a break to taxpayers who must finance any new landfill to accept solid wastes.

An Economic Analysis of the Impact of the Continued Operation and Expansion of A Type III Construction and Demolition Debris/Wood Waste Landfill and Resource Recovery and Recycling Facility in East Baton Rouge Parish

James A. Richardson[1]
Alumni Professor of Economics
Louisiana State University

I. Introduction

Natural Resources Recovery, Inc. (hereafter referred to as "NRRI") is seeking to renew its permit from the Louisiana Department of Environmental Quality to continue to operate the Ronaldson Field Type III Construction and Demolition Debris/Wood Waste Landfill and Resource Recovery and Recycling Facility (hereafter referred to as a "C&D Facility") on a plot of industrial land in the northern part of East Baton Rouge Parish.[2] Additionally, NRRI seeks to modify its permit to allow receipt of materials from beyond East Baton Rogue Parish and to increase the capacity of the C&D Facility by clarifying and amending the side slope to regulatory allowances with a resulting increase in capacity.

This C&D Facility provides for the disposal of construction and demolition debris, the conversion of wood and green waste to fuels and compost, among other things, the recovery of useable materials, and the separation of recyclable materials.[3] Such a facility also allows for the recovery of materials that can be used again in another capacity such as wood that can be redirected for use as an energy source. In East Baton Rouge Parish presently there is one available Type II landfill, the East Baton Rouge

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[1] Dr. Richardson is solely responsible for the analysis and findings contained in this report.
[2] This permit is the Ronaldson Field Type III Construction and Demolition Debris/Wood Waste Landfill and Resource Recovery and Recycling Facility.
[3] LAC 33:VII.115. These types of materials are described in Appendix A.

Municipal Solid Waste Landfill or the North Landfill, and there is NRRI's Type III C&D Facility. This facility is located on Ronaldson Field, land that fronts Rafe Mayer Road between Highway 61 and Highway 19.

This report is prepared at the request of legal counsel for NRRI with respect to the application for a renewal of a permit from the Louisiana Department of Environmental Quality in order for NRRI to continue to operate the existing C&D Facility, to allow the C&D Facility to accept construction and demolition debris and wood waste from parishes other than East Baton Rouge, and allow the expansion of the facility by increasing its capacity. The study includes (1) a description and analysis of the C&D Facility, (2) estimates of construction expenditures associated with the expansion of the C&D Facility and estimated recurring revenues to be associated with such facilities; (3) a description of the methodology of evaluating these economic impacts; (4) computations of the estimated economic impact of the expansion of the C&D Facility and the ongoing operation of the C&D Facility on East Baton Rouge and the surrounding communities; (5) the economic significance of having a C&D Facility in East Baton Rouge, with this economic significance including local government, state government, and other public agencies located in the parish such as the two state universities; and, (6) a summary of the findings of the study.

II. NRRI's C&D Facility with Recycling Capabilities

In the mid-1990s, NRRI initiated the process of creating the only Type III C&D debris facility in East Baton Rouge Parish. NRRI's Ronaldson Field opened for business in June 1998 as a Type III C&D debris landfill. Construction and demolition debris is fully identified in Appendix A. In 1999 NRRI expanded from only a Type III C&D

debris landfill to a recycling facility as well. NRRI has also been awarded a contract with East Baton Rouge Parish to process and recycle the parish's wood waste, yard trimmings, trees and stumps. The development of a C&D Facility in East Baton Rouge Parish permitted the City/Parish to divert harmless items previously unnecessarily disposed in the North landfill for recycling and disposal to the extent materials are not reusable or recyclable.

In the mid-1990s when NRRI was applying for its initial permit, the company projected capital expenditures of $2.25 million for the preparation of the landfill, site development, purchase and installation of equipment for separating materials, landscaping the site, and other expenditures to make sure the site is secure. NRRI further estimated capital expenditures of $1.75 million for equipment for recycling C&D debris and wood waste. In actuality, NRRI spent $3.275 million as of December 2000 for the initial start-up of the C&D Facility; it has spent another $1.6 million for additional equipment since that time. In total, NRRI now has spent $4.85 million on site preparation, site construction, and equipment investments.

NRRI also anticipated in its initial application for a Type III permit from the Department of Environmental Quality revenues of $2.5 million from tipping fees and resale value based on the expected tons of C&D debris and yard waste to be delivered to the site and the opportunities to recover and re-sell some of this waste. The company anticipated additional revenues of $1 million once the recycling component was operational. NRRI's revenues have grown from almost $2.4 million in 2000 to just over $3.6 million in 2003 and almost $7.2 million in 2005. The company has doubled its revenues over what it originally anticipated—this suggests a vibrant market for the C&D

Facility and the wood waste recycling. As an example, NRRI contracts with East Baton Rouge Parish to process and recycle wood waste products for yards and gardens. The $7.2 million includes activities related to Hurricane Katrina so for future projections, the company believes $5 million in revenues and resale items will be prudent.

NRRI has a payroll of just about $1.6 million with 35 permanent employees for an average salary of just over $45,000 per year. This includes health benefits and workman's compensation. It does not include social security payments made by NRRI on behalf of the workers. In its original proposal for a Type III permit NRRI had anticipated having about 40 employees.

NRRI presently is accepting approximately 80,000 tons of C&D debris and wood waste per year of which about 55 percent is recycled. These are tons of solid waste that, otherwise, would have to be deposited in the North landfill.

NRRI prepared a business plan and the company's actual capital expenditures far exceeded its projected capital expenditures. The company approached its estimate of gross revenues or $3.5 million by 2003. By 2005 the company's revenues had risen to just over $7 million—from this perspective the company underestimated its gross revenues substantially.

NRRI now wants to maintain its present business and expand the business in East Baton Rouge as the Baton Rouge economy grows and more persons become aware of Type III C&D landfills; the company also wishes to expand its business geographically. Due to travel costs, it is not expected that C&D debris or wood waste would be transported for great distances. The C&D debris and wood waste conceivably would come from within the Baton Rouge Metropolitan Area, the nine parishes including

Ascension, East Baton Rouge, East Feliciana, Iberville, Livingston, Pointe Coupee, St. Helena, West Baton Rouge, and West Feliciana. New construction is primarily occurring in Ascension, Livingston, and West Feliciana.

The continuation of NRRI's current business will maintain the revenues of $5 million, the permanent payroll of 35 persons with a payroll of approximately $1.5 million. The expansion of the C&D Facility will allow $1 million in new capital expenditures, increase the life of the landfill by about 6 to 8 years which, of course, will maintain the payroll and expenditures of the company for that many more years.

NRRI's projected and actual capital expenditures, gross revenues, and permanent employees are illustrated in Table 1, as well as the projected capital expenditures, gross revenues, and additional employees if NRRI is permitted to expand its facilities in terms of the size of the landfill and the geographical region the permit is allowed to serve.

Table 1
Construction Expenditures, Permanent Revenues, and Permanent Jobs
Initial NRRI's proposal (mid-1990s) and 2006 Capacity Expansion Proposal

Category	C&D Facility with Recovery plus Recycling Capability: Initial Estimates v. Actual	Proposed Expansion of Type III C&D Landfill and Expansion of Geographic Service Area
Construction Expenditures	Projected: $4.0 Million Actual: $4.85 million	Projected: $1 million
Annual Revenues from Tipping Fees and Receipts for Recovered and Recycled Products	Projected: $3.5 million Actual: $5.0 million	Projected: expanded life of landfill by 6 to 8 years and maintenance of revenue stream and payroll for these years
Employment opportunities at C&D Facility/Recycling	Projected: 40 persons Actual: 35 persons	Maintain employment for 6 to 8 more years

Source: author with information from NRRI.

The C&D Facility presently has a direct economic impact on the local economy in terms of its employment of 35 persons with an average salary of about $45,000 per year; the supplies and services it buys from the local economy, and the service it provides to the businesses, individuals, and governments in East Baton Rouge. To maintain this economic impact, the permit must be renewed. The proposed expansion of the C&D Facility with recycling capabilities will create, temporarily, construction jobs within the East Baton Rouge Parish economy, and these construction activities will create a ripple effect throughout the area economy for the duration of the construction project. The continued operation of the C&D Facility for an extended period of time will maintain the permanent jobs and personal earnings for those working at or servicing the C&D Facility with recycling capabilities. There will also be ripple effects throughout the area economy because of these permanent jobs and permanent personal earnings associated with the extension of the lifetime of the current facility.

III. The Methodology of Estimation of the Economic Impact

The economic impacts associated with maintaining the current C&D Facility and the proposed expansion of the C&D Facility include (1) the jobs, personal earnings, and business sales associated with the current facility plus the extension of these benefits for a longer period of time, (2) the service to businesses and individuals who need to dispose of solid waste that can be defined as construction and demolition debris or wood waste, and (3) the benefits to the community due to the extension of the life expectancy of the parish's solid waste landfill and, hence, the projected cost of the landfill in the parish. The measurement of these impacts is described below.

The methodology used to trace and estimate the economic impact of maintaining the operation of the current C&D Facility with recycling capabilities on jobs and earnings in the local economy is the input-output (I/O) model, an economic model that describes inter-industry relations within a state and region. The input-output model mathematically describes the transactions necessary among various industries as these industries produce goods and services for consumers, other businesses and industries, and government. It provides a systematic method to analyze inter-industry relationships.

The impacts captured by the I/O model fall into two categories--direct and indirect (or multiplier) effects. The direct effects are the most obvious. They are simply the direct purchases of inputs for the operation of the present C&D Facility and the recycling facility. These expenditures include materials purchased in Louisiana plus the payroll of the C&D Facility. To understand the indirect effects, it may be helpful to think of the Baton Rouge economy as an "economic pond." A stone labeled the "C&D Facility with Recycling Capabilities Project" is dropped into the pond. These operating dollars will cause a splash in the pond, but the rock will also send out ripples to the edge of the pond. These are the indirect or multiplier effects of the new activity. This same Input-Output Model is also used to estimate the economic impact of the expansion of the facility in terms of one-time construction expenditures and the continuation of ongoing revenues.

The Regional Input-Output Modeling System (RIMS II), as created by the United States Department of Commerce, Bureau of Economic Analysis (BEA), was used in this analysis for capturing these indirect economic impacts. The version used in this report

has been adapted for application to the Louisiana economy. BEA I/O tables are the most widely used and accepted tools for estimating the indirect impact on (1) the business sales of Louisiana firms, (2) personal earnings of Louisiana households, and (3) the number of jobs created by a proposed economic activity.

The savings for citizens in the parish due to lower costs of disposing of solid waste is based on the anticipated savings per year of diverting C&D debris from the North Landfill to the proposed C&D Facility, a projection of these savings over time, and the calculation of the present value of these savings using an appropriate discount rate. These savings will include (1) the lower price that the company or person or governmental agency will pay for the disposal of construction and demolition debris and yard waste and (2) any savings to the city-parish if the current operational landfill costs of disposing of solid waste exceeds the revenues received from taking the solid waste. The benefits to the community due to the extension of the life expectancy of the landfill include (1) immediate savings from not having to construct additional cells at the present time at the North Landfill and (2) savings from postponing the time when a new landfill has to be constructed. These benefits are extrapolated over time and appropriately discounted to compute the present value of these benefits.

The methodology and the numbers appear to be very impersonal, but the bottom line is that these numbers reflect positive economic impacts on persons who are just trying to support their families. This chain of events affects and benefits unskilled workers, engineers, construction workers, geo-technicians, landscape companies and employees, insurance agents, persons working at the C&D site, persons working at the convenience store down the street, and all citizens in East Baton Rouge Parish. These

benefits will be extended to businesses and citizens in nearby parishes if NRRI is permitted to accept C&D debris and wood waste from other parishes.

IV. Estimated Employment and Earnings Impacts of the Construction and Operation of the Type III C&D Facility with Recycling Capability

There are three levels of benefits that must be documented. First, the renewal of the permit allows the current operations to continue—hence, the maintenance of the permanent benefits that are now accruing to the community. Second, the new construction activities lead to temporary, but real, benefits in terms of business activity and jobs. Third, the extended life of the landfill will extend a stream of additional permanent benefits to the local community in terms of jobs and business activity and expanded opportunities for companies and individuals to use this landfill.

Maintaining Permanent Benefits of Operation of Current C&D Facility With Recycling Capability at Ronaldson Field

The operation of the C&D Facility and the recycling facility at Ronaldson Field has led to the permanent creation of business activity, personal earnings, and new jobs. These recurring economic impacts are illustrated in Table 2 based on tipping receipts and revenues from recycled products. Direct and indirect business sales are estimated to be $20.4 million with the C&D Facility and the recycling facility. The operation of the C&D/Recycling facility supports 145 jobs with personal earnings of $3.9 million. Close to one-half of these jobs will be in the transportation, communications, and utilities sector, the sector in which sanitary services and transportation services are documented.

It is estimated that 19 jobs will be indirectly supported in the wholesale and retail trade industry and 30 jobs in the business and personal service sector given the

operation of the present C&D/Recycling facility. Personal earnings associated with jobs in trade and services are projected to be just about $1.1 million. The average annual wage associated with these recurring jobs is about $22,500. This suggests the economic impact in sectors of the economy that are not directly related to the industry driving overall economic activity.

Table 2
Annual Economic Impact of Recurring Operation of C&D Facility With Recycling Facility in East Baton Rouge Parish ($5 million from tipping receipts and revenues from recoverable products)

Industry Classification	Business Sales (in millions)	Personal Earnings (in millions)	Jobs Supported
Transportation, Communications, and Utilities	$12.6	$1.9	70
Wholesale and Retail Trade	$1.1	$.5	19
Finance, Insurance, and Real Estate	$1.4	$.4	11
Business and Personal Services	$1.3	$.6	30
Others	$4.0	$.5	15
TOTAL	$20.4	$3.9	145

Source: author and Louisiana Input-Output Model

Benefits of Expansion of C&D Facility (Construction Activity)

Expanding the C&D Facility will have three distinct benefits. First, NRRI's investment of close to $1 million will have an economic impact on the overall economy in terms of business activity, jobs, and personal earnings, at least for the duration of the construction project. Second, the ability to maintain the present operations of the C&D Facility may be limited by the current size of the landfill—this is certainly true over time. Hence, to keep the present pace of the C&D Facility, expansion is essential. Third, the expanded facility may permit the landfill and recycling facility to accommodate continued operations.

The economic impacts of the $1 million expansion of the C&D Facility are illustrated in Table 3. Business activity, as measured by business sales, is estimated to be about $3.2 million in 2008. Personal earnings are projected to be about $0.9 million, and the jobs created by these activities are estimated to be 37. Construction jobs, not surprisingly, represent over 30 percent of all the direct and indirect jobs associated with this construction project.

Table 3
Annual Economic Impact of Expansion of Type III C&D Facility in East Baton Rouge Parish
($1 million spent on expansion in 2008)

Industry Classification	Business Sales (in millions)	Personal Earnings (in millions)	Jobs Supported
Construction	$1.06	$0.4	12
Transportation, Communications, and Utilities	$0.2	$0.04	1
Wholesale and Retail Trade	$0.2	$0.08	4
Finance, Insurance, and Real Estate	$0.2	$0.02	1
Business and Personal Services	$0.8	$0.3	17
Others	$0.74	$0.06	2
TOTAL	$3.2	$0.9	37

Source: author and Louisiana Input-Output Model.

These economic benefits include the jobs and business activity directly associated with the expansion of the C&D Facility and the jobs and business activity associated with the spending behavior of suppliers of materials to this construction project and the spending behavior of the workers on the construction project and the workers for companies that supply materials to the project, and so on. These benefits last only as long as the construction project. Hence, these economic benefits are temporary.

Recurring Benefits of Extended Life of C&D Facility

The extended operation of the C&D Facility and the recycling facility will lead to the maintenance of business activity, personal earnings, and new jobs for an additional six to eight years. These recurring economic impacts are illustrated in Table 4 based on expected tipping receipts and projected revenues from recycled products of $5 million per year. Direct and indirect business sales are estimated to be $20.4 million due to the extended life of the C&D Facility and the recycling facility. The extended operation of the C&D/Recycling facility will support 145 jobs with personal earnings of $3.9 million. Close to one-half of these jobs will be in the transportation, communications, and utilities sector, the sector in which sanitary services and transportation services are documented.

Table 4
Annual Economic Impact of Extended Operation of C&D Facility
With Recycling Facility in East Baton Rouge Parish
For Six to Eight More Years
($5 million from tipping receipts and revenues from recoverable products)

Industry Classification	Business Sales (in millions)	Personal Earnings (in millions)	Jobs Supported
Transportation, Communications, and Utilities	$12.6	$1.9	70
Wholesale and Retail Trade	$1.1	$.5	19
Finance, Insurance, and Real Estate	$1.4	$.4	11
Business and Personal Services	$1.3	$.6	30
Others	$4.0	$.5	15
TOTAL	$20.4	$3.9	145

Source: author and Louisiana Input-Output Model

Maintaining jobs for 6 to 8 years is as important as creating new jobs in any year. Extending the life span of the Ronaldson Field effectively adds 6 to 8 years of payroll and jobs, both direct and indirect, to the local economy.

V. Economic Benefits Accruing to Users of Type III C&D Debris Landfill

Landfills exist because there is a demand for their services. Construction and demolition debris and wood waste are created in the process of constructing and renovating plant facilities, public buildings, and residential and rental housing; in the process of maintaining public and private roads and highways; in the process of clearing and excavating land for development; and, in the process of trimming trees and maintaining parks and yards. In addition, East Baton Rouge Parish is home to the State Capitol which has torn down and rebuilt several major governmental buildings in the downtown area in the past few years and are planning to continue this building project for the next few years; two major universities that have received and will receive funding for deferred maintenance and some new buildings; a public school system that is proposing a construction program that includes tearing down several schools and replacing them with more modern facilities; and, a city and region that has grown due to Hurricane Katrina. Prior to the development of Ronaldson Field in East Baton Rouge Parish this construction and demolition debris has previously been taken to the North Landfill. The North Landfill has a projected life expectancy through 2015 or possibly 2020.[4] However, the present utilization rate of the North Landfill according to an earlier study suggests it may not have available space as long as previously projected.[5]

[4]According to North Landfill Office and according to the financial statements referring to the assets of the facility.
[5]According to the Baton Rouge Recycling Office and according to North Landfill Office.

One cost to the private citizen or company or to the tax supported public agency of the disposing of the construction and demolition waste, among other costs, includes the tipping fee[6] for use of the landfill and the collection and transportation of the construction and demolition waste. This is a direct monetary outlay; and, any reduction in this outlay is a direct benefit to the overall community. A cost to the community is to cover the full cost of operating the present landfill if the revenues related to the disposal of solid waste are not sufficient to cover that cost. Another cost to the community is finding the space available to store this waste--that is, finding space for a new landfill—and the loss of recycling and recovery opportunities. The scarcity of landfill space makes the emergence of recovery and recycling activities extremely significant.

Possible users of the landfill are identified in Table 5 by parish by the number of business establishments, the number of persons employed, and the annual payrolls of these business establishments. In total, the Baton Rouge Metropolitan Area has 16,359 business establishments, employment of 280,097, and the associated payroll of $8,795 million. Ascension, East Baton Rouge, and Livingston parishes have 88 percent of business establishments, employees, and payroll. Having an accessible construction and demolition facility in East Baton Rouge Parish should reduce the costs of operating a business in these parishes. This is a tangible economic benefits directly related to the availability of a C&D Facility, and these are recurring benefits that are sustained as long as the C&D Facility is operable. The availability of the C&D Facility will extend the expected life of the North Landfill. East Baton Rouge Parish will eventually have to construct another landfill, but the presence of the proposed C&D Facility will allow the

[6]All users of the North Landfill pay a $28 tipping fee with the exception of City-Parish agencies supported by the General Fund, BREC, the Housing Authority, and private citizens.

parish to delay the construction of another landfill. In addition, the possibility of a recycling facility will extend the expected life of both the North Landfill and the proposed construction and demolition landfill.

These tangible economic benefits will also accrue to government organizations such as the School Board, state government, two state universities, and other such political subdivisions that must deal with the disposal of C&D debris. These government agencies are not listed in Table 5. However these government units are, in many cases, planning major construction and renovation projects meaning that they will create C&D debris.

Table 5
Business Users and Potential Users of Current Construction and Demolition Landfill and Recovery and Recycling Facilities and Proposed Expansion of Facility in North Baton Rouge

Parishes in Baton Rouge Metropolitan Area	Number of Establishments	Number of Employees	Annual Payroll (in millions)
Ascension	1,612	25,309	$848.0
East Baton Rouge	11,471	209,140	$6,589.0
East Feliciana	248	4,853	$119.0
Iberville	543	10,457	$442.0
Livingston	1,382	13,483	$289.0
Pointe Coupee	365	3,965	$88.0
St. Helena	99	1,137	$27.0
West Baton Rouge	450	8,621	$266.0
West Feliciana	189	3,132	$127.0
TOTAL	16,359	280,097	$8,795.0

Source: County Business Patterns-Louisiana, U.S. Department of Commerce, 2003

Reduction in Tipping Fees

A $5 to $20 saving per ton in tipping fees in 2007 for those persons, companies, and governmental units that can make use of the C&D Facility translates into a present value savings of $5.6 to $25.7 million over the life expectancy of the North Landfill depending on the assumptions that are used in making the projections. These estimates are based on (1) 80,000 tons of construction and demolition debris and yard waste will be diverted from the North Landfill to the C&D Facility, (2) the growth in debris that is diverted from the North landfill to the C&D Facility over time grows by 3 percent to 6 percent, (3) a modest savings of $5 to $20 per ton, and (4) a discount rate of 5 percent.[7] The $5 to $20 per ton may not appear to be very significant if one only examines the first year of operations, but, if one extrapolates over the lifetime of the parish's solid waste landfill, the savings become much more substantial. If the tipping fee per ton can be reduced even more, then the savings would be even greater. Obviously, if the tipping fee could not be reduced by as much as $5 to $20 per ton, the savings would be less. Additional options for businesses and individuals for getting rid of their construction and demolition debris almost always result in a less expensive service.

Savings for Parish from Landfill Expenses

Local governments are responsible for proper disposal of solid wastes. Landfills are a necessity. Privately developed landfills such as Ronaldson Field reduce the burden on the local government. Ultimately, the local government will have to find an alternative landfill. However, time becomes an important ally in reducing costs.

[7]Debris and yard waste that are diverted from the North Landfill is estimated to be 80,000 tons; growth in the rate of increase in such diversion ranges from 3 percent to 5 percent; and the life expectancy of the North Landfill is assumed to be 2020.

A 10 percent reduction in the solid waste that is disposed of at the landfill extends the lifetime of the landfill by just about 2 years. A 30 percent reduction in the solid waste that is disposed of at the landfill extends the lifetime of the landfill by about 7 years. Such diversion of solid waste obviously does not eliminate the need for the construction of a new municipal landfill at some point in the future; however, it does permit the City/Parish to invest the money that it would have spent on the landfill in 2015 or in 2020 and invest it for the number of years for which the life of the landfill has been extended.[8]

VI. Summary and Findings

NRRI is seeking to extend its permit from the Department of Environment Quality for its C&D Facility with recycling capability in North Baton Rouge. NRRI is also asking that the permit allow it to expand the C&D Facility by increasing its height and that it be allowed to accept construction and demolition debris and wood waste from other parishes besides East Baton Rouge. The additional construction expenditures will amount to about $1 million. Anticipated tipping fees and receipts from recovered products are estimated to be about $5.0 million per year based on current operations and this stream of revenues will be extended for 6 to 8 years because of the expansion of the Type III C&D facility.

The expansion and continued operation of the C&D Facility in north Baton Rouge provides the following advantages to the community: first, the construction activity provides jobs and payroll in the short-term; second, the continued operation of the

[8]Alternatively, the City/Parish may borrow the money to construct the new landfill, but the extension of the life expectancy of the North Landfill will save the City/Parish these interest charges for the amount of time of the extension.

facility as it is now running maintains the 35 direct jobs and $1.6 million payroll associated with the facility and the indirect jobs that are estimated to be 110 jobs or a total of 145 jobs that are associated with the current operation of the facility; third, the maintenance of these 145 direct and indirect jobs for another 6 to 8 years; fourth, the availability of alternative landfill choices typically makes the cost of getting rid of solid waste by a company, an individual, or a governmental entity less expensive and these savings can be substantial depending on the tons of waste that can be diverted to other landfills with estimates ranging from a present value of $5.2 to $25.7 million; and, finally, the city/parish government can find its cost of providing sufficient landfill space being less expensive because there are private landfill alternatives with the city/parish having the life expectancy of its landfill extended by seven years.

Appendix A
What Constitutes C&D Debris?

Construction and demolition debris includes materials associated with construction, renovation, and demolition projects. Within Louisiana construction and demolition debris is defined as "non-hazardous waste generally considered not water-soluble, including but not limited to metal, concrete, brick, asphalt, roofing materials (shingles, sheet rock, plaster), or lumber from a construction or demolition project, but excluding asbestos-contaminated waste, white goods, furniture, trash, or treated lumber."[9]

Materials can be related to projects as in Table A-1. Many of these materials can be recycled. Wood products that can be recycled are included in Table A-2. Other products that can be recycled include rubble, concrete, bricks, metals, and earth and sand. The alternative uses of many of these components are catalogued in Table A-3. This means that these solid wastes do not have to take up room in a landfill, but rather they can be converted to another use in the regional, state, and national economy. Recovering and recycling save other virgin resources from being used for activities that can be accomplished by recycled materials. These recovered and recycled materials can be placed directly back into the stream of commerce. These solid wastes require processing to make them useable again so there will be a conversion cost.

[9]LAC 33:VII.115.

Table A-1
Components of Construction and Demolition Debris as Related to Type of Project

Type of Project	Type of Material
Construction	mixed rubble, wood, roofing, wall board, pipe, paper, and bricks
Demolition	mixed rubble, concrete, steel beams, bricks, wood, and pipes
Excavation	earth, sand, stones, and wood
Roadwork	asphalt, concrete, and earth
Site Clearance	trees, brush, earth, concrete, mixed rubble, sand, steel, and paper

Source: A Fact Sheet from PRO-ACT: Disposal of Construction and Demolition Debris (continued), sponsored by HQ Air Force Center for Environmental Excellence, (April 1995).

Table A-2
Wood Products That Can Be Recycled

Category of Wood	Types of Woods Included in Category
Brush & Tree Trimmings under 12" in diameter	Tree tops, brush, wood chips, stumps, Christmas trees
Tree Residue over 12" in diameter	Un-chipped wood and logs
Pallets	pallet and pallet parts manufactured from solid lumber
Construction Debris\lumber trimmings	Wood scraps from new construction such as lumber trim ends, plywood scrap, and solid lumber from cabinet and furniture manufacturing
Demolition Debris	Lumber and other wood products from older construction
Engineered Wood	Wood products constructed from reconstituted wood such as plywood, oriented strand board, particleboard, fiberboard, laminated beams, and I-joints
Other	Saw dust, chips, wood flour, shingles, river recovered logs, antique structures, shavings, boxes, barrels, crates, and spools

Source: National Wood Recycling Directory.

Recovering and recycling save solid waste landfill space for those materials that cannot be redirected or recycled, at least at this time. In addition, recovery and recycling creates additional jobs for the communities that encourage and promote this type of industry. The recycling industry is just like any other industry--it creates a product that consumers and businesses are willing to buy.

Table A-3
Potential Uses of Recycled Materials

Material to be Recycled	Potential Use for Material
Asphalt	road sub-base fill
Concrete	crushed and mixed to make new asphalt cement blocks; crushed and screened aggregate can be used in asphalt concrete
Dirt	landscaping landfill cover
Metal	scrap metal dealers
Wood	timber\wood pulp: shredded for fuel, animal bedding, landscaping, manufactured building products, and compost
Brick	masonry crushed for ornamental store
Glass	fiberglass insulation, sand blast, aggregate in asphalt reflective beads
Sheetrock	soil amendment, wall board, absorbent media
Roofing shingles	asphalt paving

Source: same as Table A-1.

Solid waste material can be recycled as suggested in Table A-3 and will be to the extent that it makes economic sense. The cost of converting solid waste materials to a useable product is covered by the revenues that these recycled products will generate. Recovering and recycling extend the use of the C&D Facility which is a positive economic factor encouraging both. Items listed in Table A-4 are products that are currently made from recycled wood. These items have met the market test. Scarcity of solid waste landfills will promote recycling leading to improvements in technology used in the recycling operations. The market will accommodate and promote environmentally sound policies in this case.

Table A-4
Examples of Products Currently Made From Recycled Wood

Various Products That Can Be Made From Recycled Wood			
absorbents	asphalt cements	fiberboard	paper
activated carbon	block filler	finger-jointed lumber	particle board
animal bedding	caulks	fire-starting pellets	pet litter
art (sculpture)	epoxy	densified fire logs	plastic wood
artificial coral reefs	food additives	stove pellets	potting-top soil
auto door panels, interiors, trunk liners	filter medium	furniture	pulp
barrels	filtrates	honeycomb panels	pyrolysis oils
boxes	gasket material	humus	reels
carbon and fiber composites	grouts	landfill cover	municipal solid waste amendment
cellulose, batts and blankets	insulation	landscaping material	soil amendment
cement bonded particle boards	mastics epoxy	medium density fiberboard	spools
charcoal	plastics	methanol-syngas	toys
compost amendment	phenolic molding compounds	mulch-hydromulch	wood-inorganic composites
crates	roof coating	oriented strand board	hog fuel
erosion control materials	sealants	packaging filler	feedstock-corrugated boxes
ethanol	textured paints	pallets	firewood
fiber adhesives	tile cements	panel products	

Source: same as Table A-2.

EXHIBIT 1
1701 DOCUMENTATION

Media Type (check one)
Hazardous Waste ☐ Air ☐
Solid Waste ☒ Water ☐
Radiation Licensing ☐

Agency Interest Number: 42610
Is this a copy of a previously submitted form? Yes ☐ No ☒
If yes, indicate the original submittal date:
If yes, indicate the original permit number:

Department of Environmental Quality
Permits Division
P.O. Box 4313
Baton Rouge, LA 70821-4313
(225) 219-3181

Addendum to Permit Applications per LAC 33:I.1701

Please Type Or Print

Company Name: Natural Resources Recovery, Inc. — ☒ Owner ☒ Operator

Parent Company (if Company Name given above is a division): NA 00000

Plant name (if any): Ronaldson Field Construction and Demolition Debris Landfill

Nearest town: Baton Rouge, Louisiana — Parish where located: East Baton Rouge

For Permits Division Use Only

1. Does the company or owner have federal or state environmental permits identical to, or of a similar nature to, the permit for which you are applying in other states? (This requirement applies to all individuals, partnerships, corporations, or other entities who own a controlling interest of 50% or more in your company, or who participate in the environmental management of the facility for an entity applying for the permit or an ownership interest in the permit.)

   ☐ Permits in Louisiana. List Permit Numbers: No

   ☐ Permits in other states (list states): No

2. Do you owe any outstanding fees or final penalties to the Department? No ☒ Yes ☐
   If yes, please explain.

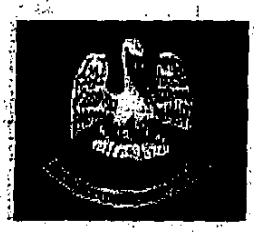
3. Is your company a corporation or limited liability company? No ☐ Yes ☒ If yes, attach a copy of your company's Certificate of Registration and/or Certificate of Good Standing from the Secretary of State.

Certification:

I certify, under provisions in Louisiana and United States law which provide criminal penalties for false statements, that based on information and belief formed after reasonable inquiry, the statements and information contained in this Addendum to the Permit Application, including all attachments thereto are true, accurate, and complete.

Responsible Official

Name: Sid Brian	City: Baton Rouge	State: La / Zip: 70808
Title: President	Business phone: (225) 766-1443	
Company: Natural Resources Recovery, Inc.	Signature of responsible official(s):	
Suite, mail drop, or division	Date: Sept 20, 06	
Street or P.O. Box: 5800 One Perkins Place Suite 6-A		



Louisiana Secretary of State
COMMERCIAL DIVISION
Corporations Database

Louisiana Secretary of State
Detailed Record

Charter/Organization ID: 34508691D

Name: NATURAL RESOURCES RECOVERY, INC.

Type Entity: Business Corporation

Status: Active

Annual Report Status: In Good Standing **Add Certificate of Good Standing to Shopping Cart**

Last Report Filed on 10/31/2005

Mailing Address: 5800 ONE PERKINS PLACE, STE. 6A, BATON ROUGE, LA 70808

Domicile Address: 5800 ONE PERKINS PLACE, STE. 6A, BATON ROUGE, LA 70808

File Date: 10/18/1995

Registered Agent (Appointed 10/18/1995): JOHN W. BARTON, JR., BREAZEALE, SACHSE & WILSON, L.L.P., 23RD FLOOR, ONE AMERICAN PLACE, BATON ROUGE, LA 70825

President: SIDNEY G. BRIAN, 7388 HIGHLAND ROAD, STE. E, BATON ROUGE, LA 70808

New Search View Cart

EXHIBIT 2
ZONING LETTER

Office of the Planning Commission

City of Baton Rouge and Parish of East Baton Rouge
Post Office Box 1471, Baton Rouge, Louisiana 70821
or
1755 Florida Street, 3rd Floor, Baton Rouge, LA 70802
Phone (504) 389-3144 Fax (504) 389-5342

Robert S. Dolese, AICP
Director of Planning

☐ CDS ____ ☑ MBS ✓
☐ NJC ____ ☑ RJR ✓
☐ WCM ____ ☐ CJP ____

October 18, 1995

OCT 20 1995

CSRS
Michael B. Songy
10725 Perkins Rd. Suite 200
Baton Rouge, LA 70810

☐ ____ ☐ ____
Project No. ____
File Name ____

Dear Mr. Songy:

This is to advise you that the property located on the southerly side of Rafe Meyer Rd. between Old Rafe Meyer Rd. and Leisure Rd. known as the "Airport" Tract being a property of the Margery R. Peterson Succesion is zoned M2. Your proposed landfill is a permitted use within the M2 Heavy Industrial District and it is located within the Parish Designated Industrial Area in area number four.

This letter is not to be construed as a permit. Any permit for use of or construction on this property must be obtained from the Inspection Division of the Department of Public Works.

Sincerely,

Kelly Russell
Planner II

KR/kr

Attachment

c: Richard Barker, Planner IV
James Frey, Building Official

EXHIBIT 3
COPY OF PUBLIC NOTICE

CAPITAL CITY PRESS
PO BOX 588
BATON ROUGE, LA 70821-0588

(225) 383-1111 FED ID NO 72-0146160

DATE: 9-21-06

ACCOUNT NUMBER: 700637

LEGAL ADVERTISING INVOICE

* * * ORIGINAL INVOICE * * *

ENGINEERING ASSOCIATES

1415 DELPLAZA DR STE B
BATON ROUGE LA 70815

PRVT/CREDITS

INVOICE NUMBER	TAG / DESCRIPTION	START DATE	STOP DATE	TIMES	SIZE	AMOUNT DUE
T0341938809	STEVE BURNHAM TYPE 111	09/21/06	09/21/06	1	210.0	400.50

LEGAL ADVERTISING INVOICE AFFIDAVITS WILL BE SENT SEPARATELY

PUBLIC NOTICE

OF

INTENT TO SUBMIT PERMIT APPLICATION

RONALDSON FIELD CONSTRUCTION AND DEMOLITION DEBRIS (TYPE III) LANDFILL

EAST BATON ROUGE PARISH, LOUISIANA

Notice is hereby given that Natural Resources Recovery, Inc. does intend to submit to the Louisiana Department of Environmental Services, Permits Division, a permit renewal application for the continued operation of Ronaldson Field Construction and Demolition Debris (Type III) landfill. Ronaldson Field is located on Rafe Mayer Road in Section 35, Township 5 South, Range 1 West, East Baton Rouge Parish, Louisiana, approximately 0.8 miles west of the intersection of Highway 19 and Rafe Mayer Road. Comments concerning the facility may be filed with the Secretary of the Louisiana Department of Environmental Quality at the following address:

Louisiana Department of Environmental Quality
Office of Environmental Services
Permits Division
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

3419388-sep 21-1t

EXHIBIT 4
ARTICLES OF INCORPORATION AND PROOF OF LAND OWNERSHIP

ARTICLES OF INCORPORATION
OF
NATURAL RESOURCES RECOVERY, INC.

STATE OF LOUISIANA

PARISH OF EAST BATON ROUGE

BE IT KNOWN, that on this 17th day of October, 1995, before me, the undersigned Notary Public, personally came and appeared:

SIDNEY G. BRIAN

a resident of full age of majority of East Baton Rouge Parish, Louisiana, who declared to me, in the presence of the undersigned competent witnesses, that pursuant to the provisions of the Louisiana Business Corporation Law (Title 12, Chapter 1, Louisiana Revised Statutes of 1950, as revised and amended), appearer does hereby organize and create a corporation in pursuance of that law, under and in accordance with the following articles of incorporation:

ARTICLE I
CORPORATE NAME

The name of the Corporation is Natural Resources Recovery, Inc..

ARTICLE II
CORPORATE PURPOSE

The Corporation's purpose is to engage in any lawful activity for which corporations may be formed under the Business Corporation Law of Louisiana.

ARTICLE III
AUTHORIZED STOCK

The Corporation is authorized to issue 10,000 shares of common stock at no par value.

ARTICLE IV
INCORPORATOR

The incorporator's name and address is:

Sidney G. Brian
7388 Highland Road
Suite 8
Baton Rouge, LA 70808

ARTICLE V
CORPORATION ACTION BY SHAREHOLDERS

Any corporate action of shareholders, including specifically, but not by way of limitation, adoption of amendments to the articles of incorporation, approval of merger and consolidation agreements, authorization of voluntary disposition of all or substantially all corporate assets, may be taken on affirmative vote of a majority of the voting power present.

ARTICLE VII
ELECTION OF DIRECTORS

In the election or removal of directors, each shareholder of record is entitled to multiply the number of votes to which he is entitled by the number of directors to be elected, and to cast all such votes for one candidate or distribute them among any two or more candidates.

ARTICLE VIII
DIRECTOR'S PROXY

Any director absent from a meeting of the Board or any committee thereof, may be represented by any other Director or Shareholder who may cast the absent Director's vote according to the absent Director's written instructions, general or special.

ARTICLE IX
STOCK BUY-SELL AGREEMENT

The holders of the shares of common stock shall not sell any of the same to any third person until such holder desiring to sell shall have first offered the same through the secretary of the Corporation to the other holders of common stock in writing for a period of thirty (30) days at the same price at which an acceptable bona fide offer therefor from a third person whose name and address shall be disclosed, may have been received by such holder. Within the first twenty (20) days of the thirty (30) day period the other then registered holders of commons stock shall have the right to purchase said stock so offered in proportion to their holdings of commons stock. In the next ten (10) days of the thirty (30) day period, the shareholders electing to purchase common stock shall have the right to purchase the stock offered but not theretofore purchased by the other holders of common stock. Any stock not purchased on the thirtieth (30) day may be purchased by the Corporation according to law.

ARTICLE X
INDEMNIFICATION AND DIRECTORS AND OFFICERS LIABILITY

A director or officer of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director or officer, except for liability (i) for any breach of the director's or officer's duty of loyalty to the Corporation or its stockholders, (ii) for acts of omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 92(D) of the Louisiana Business Corporation Law, or (iv) for any transaction from which the director or officer derived any improper personal benefit. If the Louisiana Business Corporation is amended after approval by the stockholders of this article to authorize corporate action further eliminating or limiting the personal liability of directors or officers, then the liability of a director or officer of the Corporation shall be eliminated or limited to the fullest extent permitted by the Louisiana Business Corporation law, as so amended.

Any repeal or modification of the foregoing paragraph by the stockholders of the Corporation shall not adversely affect any right or protection of a director or officer of the Corporation existing at the time of such repeal or modification.

The Corporation shall indemnify and hold harmless each director and officer not or hereinafter serving the Corporation from and against any and all claims and liabilities to which he may be or become subject by reason of his now or hereafter being or having heretofore been a director or officer of the Corporation and/or by reason of his alleged acts of omissions as such officer or director at the time when

any such claim or liability is asserted, and shall reimburse each such director and officer for all legal and other expenses reasonably incurred by him in connection with defending any and all such claims or liabilities, including amounts paid or agreed to be paid in connection with reasonable settlement made before final adjudication with the approval of the Board of Directors, whether or not he continues to be such officer or director at the time such expenses are incurred; provided, however, that no director or officer shall be indemnified against any claim or liability arising out of his own negligence or willful misconduct or shall be indemnified against or reimbursed for any expenses incurred in defending any and all such claims or liability or in settling the same unless in the judgment of the directors or the shareholders of the Corporation the director or officer against whom such claim or liability is asserted has not been guilty of negligence or willful misconduct. The foregoing right of indemnification shall not be exclusive of other rights to which any director or officer may be entitled as a matter of law.

THUS DONE AND SIGNED at my office in the City of Baton Rouge, Parish and State aforesaid, on the day, month, and year set forth above, in the presence of the undersigned competent witnesses and me, Notary, after due reading of the whole.

WITNESSES:

INCORPORATOR:

SIDNEY G. BRIAN

NOTARY PUBLIC

SALE WITH MORTGAGE

STATE OF LOUISIANA

PARISH OF EAST BATON ROUGE

On this 9th day of January, 1998, before me, a Notary Public in and for the aforesaid State and Parish, and in the presence of the subscribing witnesses, personally appeared:

RANDALL W. PETERSON, SR.
widower of Margery Amiss Ronaldson Peterson, whose mailing address is P. O. Box 627, Baton Rouge, Louisiana 70821

and

RANDALL W. PETERSON, JR.
a single man, never married, whose mailing address is P. O. Box 627, Baton Rouge, Louisiana 70821

(herein collectively referred to as the "Seller")

who declared that for the consideration and upon the terms expressed below, Seller does hereby sell and deliver with full warranty of title and subrogation to all rights and actions of warranty Seller may have unto:

NATURAL RESOURCES RECOVERY, INC.
a Louisiana corporation, domiciled and doing business in East Baton Rouge Parish, Louisiana, represented hereby Sidney G. Brian, duly authorized by a resolution of its Board of Directors attached hereto and made a part hereof, whose mailing address is P. O. Box 1065, Baton Rouge, Louisiana 70821,

(herein referred to as the "Buyer")

all of their right, title and interest therein the following described property (being a 100% interest), the possession and delivery of which Buyer acknowledges:

A certain tract or parcel of ground known as "The Margery R. Peterson Property" containing 87.058 acres (3,792,269 sq. ft.), being a portion of the Gordon M. Ronaldson and Walker Y. Ronaldson Property, also known as the West Ronaldson Airport Property located in Sections 35 and 52, Township 6 South, Range 1 West, Greensburg Land District, East Baton Rouge Parish, Louisiana, being more particularly described as follows:

Commencing at a point being the southwest corner of Section 52, thence along the west line of Section 52, N 01°48'30" W a distance of 122.96 feet to a point, said point being on the intersection of the west line of Section 52 with the southerly right-of-way of Rafe Mayer Road, and also being the Point of Beginning.

Thence, along the southerly right-of-way of Rafe Mayer Road, S76°55'04" E a distance of 430.02 feet to a point; thence 9.96 feet along the arc of a curve to the left, having a radius of 676.62 feet and a central angle of 00°50'38" (Chord Bearing of S76°21'53" E a distance of 9.96 feet) to a point; thence 54.97 feet along the arc of a curve to the left, having a radius of 596.62 feet and a central angle of 05°16'45" (Chord Bearing of S78°08'44" E a distance of

54.95 feet) to a point and corner; thence, departing said right-of-way, S00°41'34" W a distance of 1,291.38 feet to a point, said point being on the westerly right-of-way of Leisure Road; thence, along said right-of-way S23°29'44" W a distance of 32.58 feet to a point; thence a distance of 227.21 feet along the arc of a curve to the left having a radius of 921.47 feet and a central angle of 14°07'39" (Chord Bearing of S16°53'35" W a distance of 226.63 feet) to a point and corner; thence N 89°25'24" W a distance of 8.40 feet to a point and corner; thence S00°37'08" E a distance of 8.55 feet to a point and corner; thence, departing said right-of-way, S89°43'48" W a distance of 300.53 feet to a point and corner; thence N74°54'12" W a distance of 384.00 feet; thence, N64°54'12" W a distance of 324.00 feet to a point and corner; thence N85°39'12" W a distance of 365.00 feet to a point and corner; thence S88°44'48" W a distance of 421.00 feet to a point and corner; thence, S78°44'48" W a distance of 172.00 feet to a point and corner;, thence N51°39'48" W a distance of 35.00 feet to a point and corner; thence N37°48'34" W a distance of 1,048.06 feet to a point and corner; thence N03°58'46" W a distance of 165.50 feet to a point and corner; thence, N07°35'27" W a distance of 48.59 feet to a point and corner; thence N04°45'26" W a distance of 89.40 feet to a point and corner; thence, N03°36'11" W a distance of 84.70 feet; thence, N03°04'15" W a distance of 258.27 feet to a point and corner, said point being on the southerly right-of-way of Rafe Mayer Road; thence, along said right-of-way, S89°45'37" E a distance of 1,933.97 feet to a point, thence 313.12 feet along the arc of a curve to the right, having a radius of 1,282.12 feet and a central angle of 13°59'34" (Chord Bearing S82°46'16" E a distance of 312.34 feet); thence, S75°49'01" E a distance of 6.03 feet to the Point of Beginning. (the "Property")

Seller conveys to Buyer all surface rights, all sand, gravel, clay and soil rights and one-half (½) of all oil, gas and other mineral rights owned by Seller, but in any event, not less than an undivided one-fourth (1/4th) interest in 100% of the oil, gas and other minerals in, on and under the Property herein sold. With regard to any prior recorded mineral leases affecting all or any part of the Property for which Seller's consent is required for drilling or surface operations on the Property, Seller agrees to allow Buyer to participate in any decision to grant a Lessee surface rights and not to consent to such rights in the event Buyer objects thereto and only to give its consent if it has the written approval of Buyer.

This sale is made for the price of [redacted] of which amount Buyer has paid in cash, receipt of which is hereby acknowledged by the Seller, the sum of [redacted] and for the remainder of said price, namely the sum of [redacted], Buyer has executed his promissory note of even date herewith, to the order of Seller in the

sum of [redacted]

[redacted] bearing interest at the rate of [redacted]

[redacted] percent per annum thereon from date until paid (the "Note").

The Note reads as follows:

"PROMISSORY NOTE

[redacted]

Baton Rouge, Louisiana
January 9, 1998

FOR VALUE RECEIVED, I, we or all of us, the makers, endorsers, guarantors and sureties of the note, in solido, promise to pay to the order of Randall W. Peterson, Sr. and Randall W. Peterson, Jr. the principal sum of [redacted] with an interest at the rate of [redacted] and No/100 [redacted] percent per annum thereon from date until paid.

Payments are payable to Randall W. Peterson, Sr. and Randall W. Peterson, Jr. at P. O. Box 627, Baton Rouge, Louisiana 70821 or at such other place as the Holder hereof may designate.

This Note shall be payable in equal monthly payments of [redacted] each commencing on the 1st day of the month with the first payment being due on April 1, 1998, and the same day of each month thereafter with the final payment of all outstanding principal and interest being due and payable on or before January 10, 2008.

All net proceeds paid to Holder in addition to regular monthly payments shall be credited as a release payment and shall apply as a principal payment on this Note.

This Note may be prepaid in full or in part, without any prepayment penalty.

In the event that all or any part of any installment on this Note is not made within ten (10) days after the due date and remains unpaid for ten (10) days after notice in writing is given to the Maker, then all remaining installments shall become immediate due and payable. There shall be a five (5) percent late charge for any payment made after the 10th day of the month.

After default, the Maker hereby waives presentation for payment, demand, notice of non- payment and protest, all pleas of division and discussion and in the event of any default of the principal sum hereinabove mentioned, or any installment thereof, or of the interest which shall accrue thereon, or any part of either at the respective times herein specified for the payment thereof, Maker agrees to pay reasonable attorneys' fees and costs incurred in the collection of this Note or any portion hereof, including interest.

MAKER:

NATURAL RESOURCES RECOVERY, INC.

By: /s/ Sidney G. Brian
Sidney G. Brian,
President

GUARANTOR:

/s/ Sidney G. Brian
Sidney G. Brian, Individually

"NE VARIETUR"
For identification with an act of
Sale with Mortgage passed before
me this ___ day of January, 1998 at
Baton Rouge, Louisiana.

/s/ John W. Barton, Jr.
John W. Barton, Jr., Notary Public"

The Note was paraphed "Ne Varietur" by me, Notary, for identification herewith and Seller acknowledges its receipt.

In order to secure the full and final payment of the unpaid purchase price, represented by the Note, together with all costs, including attorney's fees, Buyer grants and Seller retains a special mortgage with vendor's lien and privilege on the Property sold in favor of Seller and any future holder of the Note, or any part thereof, until the Note shall have been fully satisfied. If any part of the Note shall not be punctually paid according to its tenor, the property may be seized and sold under ordinary or executory process issued by any court of competent jurisdiction, with or without appraisement, to the highest bidder, payable in cash. Buyer expressly dispenses with appraisement and confesses judgment in favor of any holder of the Note for its full amount with interest and costs, including attorney's fees, and all other amounts secured hereby.

Mortgagor waives: (a) the benefit of appraisement as provided by article 2332, 2336, 2723 and 2724 of the Louisiana Code of Civil Procedure; (b) the demand and three (3) days delay provided by articles 2639 and 2721 of the Code of Civil Procedure; (c)the three (3) days delay provided by article 2331 and 2722 of the Code of Civil Procedure and; (d) the benefit of articles 2331, 2722 and 2723 of the Code of Civil Procedure.

Covenants of Buyer/Mortgagor. Buyer hereby covenants and agrees to the faithful performance of all of the following stipulations and obligations in favor of Seller:

a) To pay all ad valorem taxes assessed and all liens which may be asserted by governmental authorities against the Property before they become delinquent. Buyer shall furnish Seller evidence of the payment of taxes and other governmental charges

asserted against the Property. In the event Buyer should, for any reason, fail to pay and discharge promptly any such taxes and charges when due, Seller shall be authorized to pay the same, with full subrogation to all rights of taxing authorities by reason of such payment.

b) To keep valid and unimpaired the lien hereby created or intended to be created and to execute all such further instruments, assignments and to do all other things that may be reasonably required by Seller to maintain the validity and priority of the lien on the Property created by this vendor's mortgage.

c) To permit Seller or Seller's agent to have access to and the right to inspect the Property at all reasonable times, subject to reasonable notice to Buyer.

Warranties of Seller

a) Seller warrants and represents to Buyer that Seller has during their ownership complied with all federal, state and local environmental (including excavation and mining) laws, rules, regulations and statutes applicable to the Property. Seller further warrants that to the best of their knowledge, there are no petroleum products or toxic or hazardous substances stored or existing on the property, nor any spills, leaks, deposits or other environmental contamination thereon or therein. Seller hereby releases and holds Buyer harmless from and against any liability or claims arising out of or are related to results of any such environmental conditions or wetland determinations, and shall provide Buyer with full substitution and subrogation to all rights and actions of warranty against all prior vendors other than the Seller for any damaging actions done prior to their ownership.

b) Seller warrants and represents that there are no underground storage tanks located on the Property. If the Property contains underground tanks, then Seller agrees to remove the tanks at its expense in accordance with Federal and State EPA regulations and any applicable laws and ordinances.

c) Seller warrants that no commitments have been made to any governmental authority, utility company or any other organization, group or individual relating to the Property which would impose an obligation upon Buyer or its successors or assigns to make any contribution or deductions of money (except customary real estate taxes) or land, or to construct, install or maintain any improvements of a public or private

nature on or off the Property, and the execution and delivery of this Agreement and compliance with the terms hereof will not conflict with any order or rule of any governmental authority.

Covenants of Seller

a) Seller agrees to release any sold subdivided lots or sales of dirt or clay from this mortgage in exchange for receipt of forty (40) percent of the net proceeds from the sale of a lot or sale of dirt or clay. Net proceeds for the sale of lots shall be defined as gross sale proceeds less real estate commissions, vendor's pro rata real estate ad valorem taxes, closing costs incurred by Buyer, a five (5) percent escrow funded from the gross sale proceeds to fund Buyer's income tax liability and a five (5) percent fee to be paid to Brian Development Corporation, Inc. for a real estate commission. In no event will net proceeds be less than eighty (80) percent of a subdivided lot's gross sales price. Net proceeds for the sale of dirt or clay shall be defined as gross revenues less direct costs incurred by Buyer.

b) Seller agrees to release from this mortgage all requested servitudes and street rights-of-way that Buyer may be required to dedicate.

c) Seller further agrees to subordinate this mortgage in favor of a construction mortgage that will secure a construction loan to finance the cost of developing the landfill, recycling and recovery facility and constructing improvements on or to the Property. However, Seller reserves the right to inspect and approve Buyer's specific development plan upon request from Buyer of said subordination with the understanding that the herein stated purchase price includes due consideration for subordination rights and with the full understanding that subordination cannot be unreasonably denied. Buyer and Seller further agree that at no one time will the subordination exceed [redacted] total and that all money borrowed under the development or construction loan shall be used only to finance construction and construction-related development costs on and to the Property.

d) In further consideration of the subordination by Seller, the balance of the net proceeds not paid to Seller, namely sixty (60) percent, shall be paid to the construction lender until such time as said lender has been paid in full, at which time the Seller shall receive one hundred (100) percent of the net lot proceeds until the

herein described indebtedness to Seller is paid in full. Only after both the construction lender and Seller have been paid in full will Buyer be allowed to participate in the net proceeds.

Default. Buyer covenants, agrees and stipulates that if any one or more of the following events shall happen or occur, namely:

a) If all or any part of any installment on the Note is note paid within ten (10) days from when due and remains unpaid ten (10) days after notice in writing is given to the Maker;

b) If default be made in the due observance or performance of any other covenant, stipulation or condition herein required to be kept by Buyer and any such default shall continue for a period of thirty (30) days after written notice thereof to Buyer by Seller specifying such default and requiring the same to be remedied;

c) If the Buyer should (i) make a general assignment for the benefit of creditors or; (ii) file a case or have a case filed against Buyer under Title 11 of the U.S. code or any other insolvency law that is not dismissed within sixty (60) days;

d) If an order, judgment or decree shall be entered appointing a receiver, trustee or liquidator of Buyer, or of all or substantially all of Buyer's assets;

e) If the Property or any part thereof be seized in the execution of a writ of executory process, attachment, fieri facias or any other legal process, or an order for the sale of the Property or any part thereof be issued in any judicial proceeding, and such writ is not released, revoked, stayed or set aside within thirty days from the issuance thereof;

THEN, AND IN EACH AND EVERY SUCH CASE, the entire unpaid balance on the Note, at the option of the Seller, may be declared to be due and payable immediately, anything in this Sale with Mortgage or in the Note to the contrary notwithstanding without any demand or putting in default. Buyer hereby consents, agrees and stipulates that in the event of any such default it shall be lawful for Seller to have the Property seized and sold under executory or ordinary process as hereinabove provided.

Notwithstanding any other foregoing provisions, the Note and this Mortgage may only be assumed with the written consent of the Holder of the Note.

All parties signing the within instrument have declared themselves to be of full legal capacity.

All taxes for 1997 assessed against the Property herein have been paid. Taxes for the year 1998 will be prorated between the parties and paid by Buyer.

All the agreements and stipulations herein contained, and all the obligations herein assumed, shall inure to the benefit of and be binding upon the heirs, successors and assigns of the respective parties hereto. The Buyer, its successors and assigns, shall have and hold the Property described herein in full ownership forever.

THUS DONE AND SIGNED by the parties at Baton Rouge, Louisiana, on the date first above written and in the presence of me, Notary and the following competent witnesses herein signed in the presence of the parties and me, Notary.

WITNESSES:

SELLER:

RANDALL W. PETERSON, SR.

RANDALL W. PETERSON, JR.

BUYER:

NATURAL RESOURCES RECOVERY, INC.

By: _____
SIDNEY G. BRIAN,
PRESIDENT

JOHN W. BARTON, JR.
NOTARY PUBLIC

#118432/akm

RESOLUTIONS OF THE BOARD OF DIRECTORS

OF

NATURAL RESOURCES RECOVERY, INC.

BE IT RESOLVED THAT: Sidney G. Brian, President of this Corporation, is hereby authorized, directed, and empowered for, and on behalf of and in the name of this Corporation, to purchase the property described on Exhibit "A" attached hereto for the purchase price of [redacted] upon such terms and conditions as he deems acceptable.

BE IT FURTHER RESOLVED, that the President be and he is hereby authorized, empowered and instructed for and on behalf of and in the name of Natural Resources Recovery, Inc. to execute any and all documents necessary and proper to acquire said property, including particularly, but without limitation, the execution and delivery of any and all acts and instruments of writing, with all usual and customary clauses contained in acts of sale or other transfer of property in Louisiana, and upon such other terms and conditions as the President may deem fit and proper, and to do all things necessary to consummate said acquisitions.

BE IT FURTHER RESOLVED, that the President is authorized and empowered for and on behalf of the corporation to make a loan for the corporation from Randall W. Peterson, Sr. and Randall W. Peterson, Jr. in an amount up to [redacted] and payable in such a manner and bearing such interest rate as he may determine proper. In connection with the authority herein granted, he is authorized and empowered to mortgage the property described on Exhibit A attached hereto, owned by the corporation, to secure said loan, such mortgage to contain all of the usual and customary clauses contained in mortgage instruments in Louisiana, including the confession of judgment, waiver of appraisement and to sign any notes, mortgages, assignment of leases and rents, leases, contracts, promissory notes and any other documents, all on such terms and conditions that he may deem proper and advisable to carry out the authority granted in this resolution.

CERTIFICATE

I, the undersigned Secretary of Natural Resources Recovery, Inc., hereby certifies the above and foregoing to be a true and correct copy of Resolutions unanimously adopted at a special meeting of the Board of Directors of said Corporation, duly and legally called on the 7th day of January, 1998, where a quorum was present and the same has not been revoked or rescinded.

Baton Rouge, Louisiana, this 9th day of January, 1998.

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FILED AND RECORDED
EAST BATON ROUGE PARISH, LA.
1998 JAN 09 PM 04:07:49
FIL BK FOLIO
DOUG WELBORN
CLERK OF COURT & RECORDER
CERTIFIED TRUE COPY
BY
DEPUTY CLERK & RECORDER

Billie W. Brian
Secretary

Countersigned:

Sidney G. Brian, President

2/12/2006

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EXHIBIT 5
VICINITY MAP

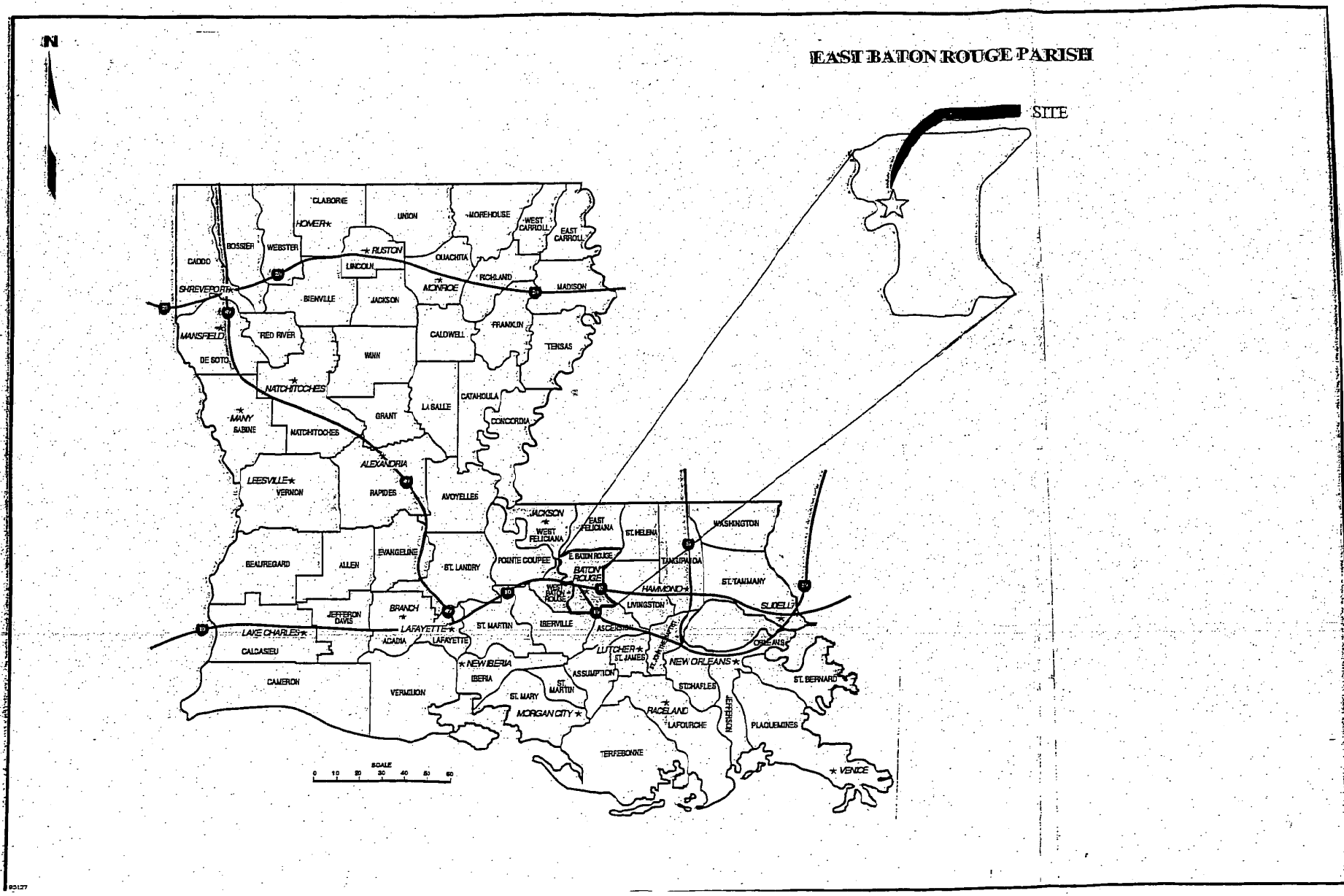


EXHIBIT 6
LOCATION MAP

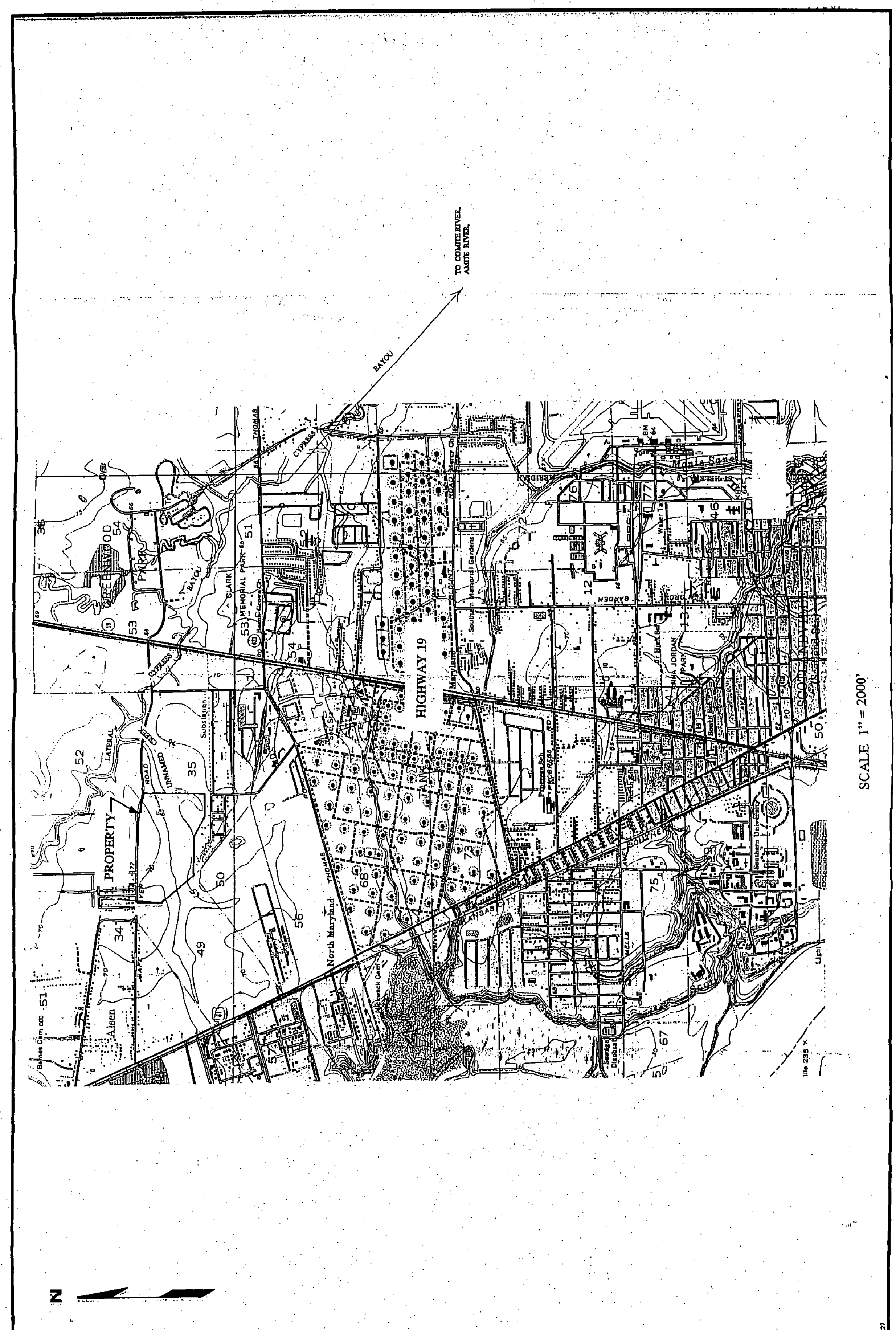
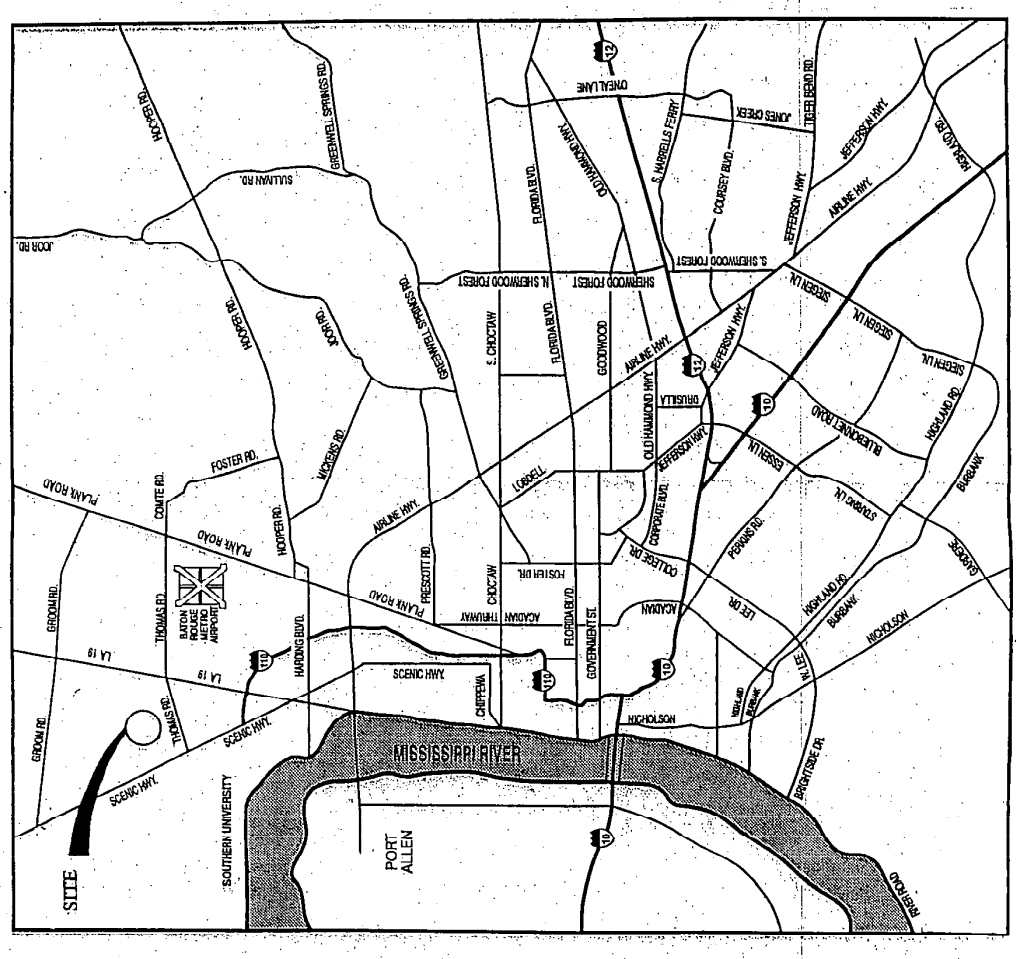

TO COMITE RIVER, AMITE RIVER
BAYOU
HIGHWAY 19
PROPERTY
North Maryland
SCALE 1" = 2000'
N

EXHIBIT 7
HIGHWAYS MAP



APPROXIMATE SCALE 1" = 18,300'